

THE ARCHITECT & BUILDING NEWS

11 MARCH 1954

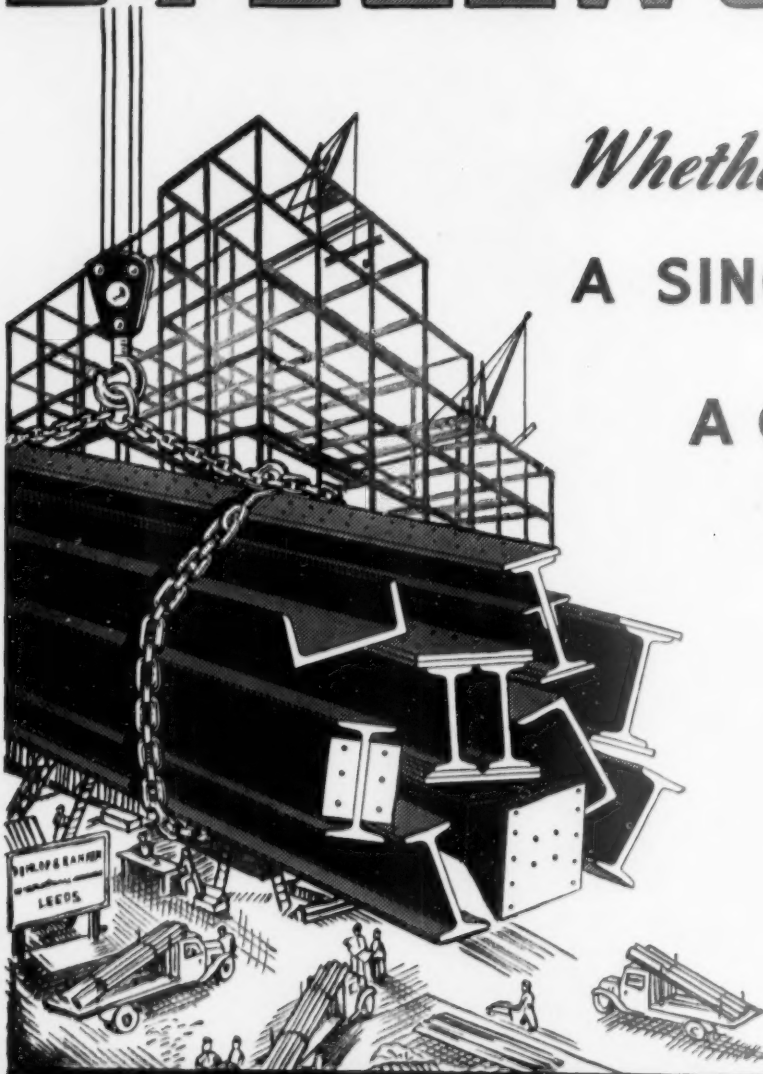
VOL. 205

No. 10

ONE SHILLING WEEKLY

- FLATS AT POPLAR
- PLAN FOR URBAN TRAFFIC
- GLASGOW AIR TERMINAL

STEELWORK



Whether you want

**A SINGLE JOIST
OR
A COMPLETE
BUILDING**

Try

D & R

**STEELWORK
SERVICE**

DUNLOP & RANKEN

**CONSTRUCTIONAL ENGINEERS
IRON & STEEL STOCKHOLDERS**

LTD

TELEPHONE
27301 (20 LINES)

LEEDS

TELEGRAMS
"SECTIONS LEEDS"

“There’s a lot of fine points to puttin’ up a first-class privy† that the average man don’t think about. It’s no job for an amachoor take my word on it. There’s a whole lot more to it than you can see by just takin’ a few squints at your nabor’s.”

*Lemuel Putt **



WE’VE been deeply into these fine points at Williams & Williams lately; and we think we have something really satisfying in our new Roften Privy. Just a few of the reasons for our satisfaction are shown below:—

1. Roften toilet compartments are cheaper than brick and tiles: prefabrication makes them easy and quick to erect.
2. They can be grouped in any number.
3. They are made of high quality sheet steel which is rustproof, fire resistant and won’t harbour germs.
4. The doors are double skinned to prevent warping.
5. They will stand up to climatic conditions in any part of the world.
6. The clean straight lines are in keeping with modern trends in design.
7. Roftens are supplied in finished colours to specification.

If you are putting toilet compartments into schools or hospitals, factories or offices we should be glad to tell you about the new Roften lavatory units. Please write or telephone.

† Lavatories or even toilet compartments if you wish Sir.

* The Specialist by Charles Sale: Putnam, 42 Great Russell Street, London, W.C.2.

The Pressed Metal Division of WILLIAMS & WILLIAMS Limited

ROFTEN WORKS HOOTON CHESHIRE
or telephone our nearest Area Office. There are 17 of them.



Specialists in high-class joinery for the Building Trade

THE YORKSHIRE COPPER WORKS LTD

LEEDS ENGLAND
BARRHEAD SCOTLAND

CONTRACTORS TO THE ADMIRALTY
& ALL GOVERNMENT DEPARTMENTS
TELEPHONE LEEDS 75431 (12 lines)
TELEGRAMS "YORKOPPER LEEDS"

LEEDS

March 12th, 1954.

Dear Sir,

"YORKSHIRE" CAPILLARY FITTINGS UNDER FROST CONDITIONS.

There can be no doubt whatever on the evidence obtained during the recent cold spell that Solid Drawn Copper Tubes joined together by "Yorkshire" Capillary Fittings constitute the most effective resistance to frost. If the "Yorkshire" joint is not properly made it will pull out like other types of joints, but the instances of this are few and far between, because by now the British plumber knows how to make a "Yorkshire" joint properly; after all, over 60,000,000 are in use.

By last week's post, we received the following from one of our Representatives writing from a Midland County. He had been to the Borough Engineer and Surveyor's Department of a well known town.

" On arrival were met by Mr. ... Senior Housing Architect,
" who said that they had been alarmed by the number of
" compression joints which had pulled out during the recent
" frosty spell, and as a result of a meeting with the
" Authorities held to discuss this it had been decided to
" change over to "Yorkshire". "

Also by the same post from London came the following :-

" Mr. ... A.R.I.B.A., whom we had not met before, told us
" that an important client of theirs had told him that
" during the recent heavy frost, almost all the compression
" fittings had pulled out and caused considerable
" inconvenience especially as the plumbing system had only
" recently been installed, at his new house. "

If you specify plumbing work is to be in Solid Drawn "Yorkshire" Copper Tubes manufactured from phosphorus deoxidised arsenical copper to B.S.1174, and the pipes joined together with "Yorkshire" Capillary Fittings, you will be doing the best that can be done to combat frost conditions. Even copper pipes will burst under some conditions, which should obviously be avoided, but in comparison with other metals and other fittings the evidence that the "Yorkshire" system is the most resistant against frost is conclusive.

Yours faithfully,
THE YORKSHIRE COPPER WORKS LTD.

H. J. Sherborne

General Manager - Director.



Sundeala

The British Made
Building Boards of
Quality and
Experience

THEY ARE MADE TO LAST

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Works : SUNBURY-ON-THAMES

Glasgow : BALTIC CHAMBERS, 50 WELLINGTON ST, C.2

Newcastle : NORTHUMBRIA HOUSE, PORTLAND TERRACE, 2

Specify

RAX *PATENT*

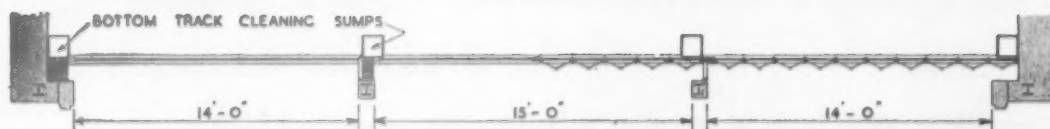
ROLLER LEAF SLIDING STEEL SHUTTER DOORS

MANUAL OPERATION OR POWER OPERATED

BY :- PUSH BUTTON INVISIBLE RAY

OR AUTOPAD CONTROLLED

RAX DOORS ARE UNEQUALLED IN-DESIGN QUALITY WORKMANSHIP



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BRANCHES AT:- BIRMINGHAM LIVERPOOL MANCHESTER DUBLIN
BELFAST NEWCASTLE-ON-TYNE BRISTOL PLYMOUTH EXETER

Watching your interests . . .

We

hold our

horses!



We held them for 6 months or more. We held them at the price of not being first in the field with plastic emulsion paint. But we weren't just sitting back. We were *grooming* our dark horse, giving it a preliminary canter over the Course, putting it through its paces, checking its stamina and performance, until we *knew* we had a winner. So that when PAMMASTIC put in an appearance, it went way out in front — to lead the field as Blundell products have done for nearly a Century and a half.

As the hand that wields the brush rules the Estimate, Blundell's PAMMASTIC is a particularly timely contribution. This plastic emulsion coating cuts labour costs because it . . . requires no primer or undercoat . . . is as quick and easy to apply as distemper . . . dries in under two hours—enabling the second coat to be applied without delay . . . takes only two coats to cover the most contrasting surfaces. What's more; Pammaastic cuts labour maintenance costs too, for it lasts indefinitely. For a brilliant enamel or soft eggshell enamel finish, the recommended complementaries to Pammaastic are Blundell's Pammel and Pammelette.

BLUNDELL PAINTS

BLUNDELL, SPENCE & CO. LTD · MAKERS OF PAINTS SINCE 1811 · 9 UPPER THAMES ST. · LONDON · E.C.4 & HULL
And at Glasgow, Liverpool, Newcastle, West Bromwich, Bombay and Sydney. Associated Company at Valparaiso.

After the disastrous fire in 1212 KING JOHN issued an ordinance in which the following appeared—

"All shops on the Thames be whitewashed and plastered within and without. All houses which can be plastered let them be plastered within eight days . . . those that will not be plastered in that term be demolished."

FIRE

what is the menace?

A building may be inconvenient, ugly, noisy or unhealthy, without being more than a nuisance to its occupants — BUT IF IT IS A FIRE-TRAP,

IT IS A PUBLIC MENACE.

which is the best wall lining?

"Plaster, being made of sand and calcium sulphate is incombustible and highly fire-resisting as a material. When it is reinforced and thereby held in position by wood laths, or better still by metal mesh, its resistance is valuable... Fire has been known to rage fiercely for a time in the flue-like spaces inside a stud partition while the plastered faces remained intact." From 'Fires in Buildings — the behaviour of materials in fire' by Bird & Docking.

why is Gypsum plaster the best?

FIRE RESISTANCE. "MURITE" Plasters when set revert to Gypsum. This mineral contains 20% of chemically combined water which must be driven off before dangerous temperatures can be reached. This water barrier is one of the reasons why 'MURITE' Gypsum Plasters have such excellent fire-resisting properties.

GYPSUM PLASTER

**QUITE INCOMBUSTIBLE
FULLY FIRE RESISTING**

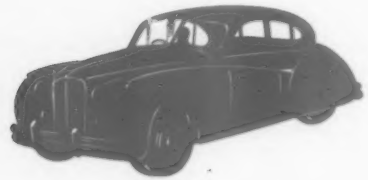


CAFFERATA & CO. LTD.

NEWARK - UPON - TRENT, NOTTS.

TELEPHONE: NEWARK 2060

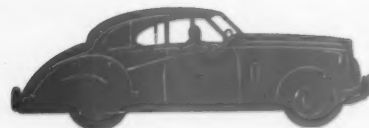
TELEGRAMS: "CAFFERATA, NEWARK"



Wherever



you go...



All over the country, you see increasing evidence of the efforts we are making to satisfy growing demands, with more kilns producing more and more bricks, and with organised distribution by road, rail and water.



PHORPRES

LONDON BRICK COMPANY LIMITED *Head Office:* AFRICA HOUSE, KINGSWAY, LONDON, W.C.2
Telephone: Holborn 8282. *Midland District Office:* Prudential Buildings, St. Philip's Place, Birmingham, 3
Telephone: Colmore 4141. *South Western District Office:* 11 Orchard Street, Bristol, 1. *Telephone:* Bristol 23004/5
Northern District Office: Gascoigne Street, Boar Lane, Leeds, 1. *Telephone:* Leeds 20771.



BY APPOINTMENT
 BRICKMAKERS TO
 THE LATE
 KING GEORGE VI

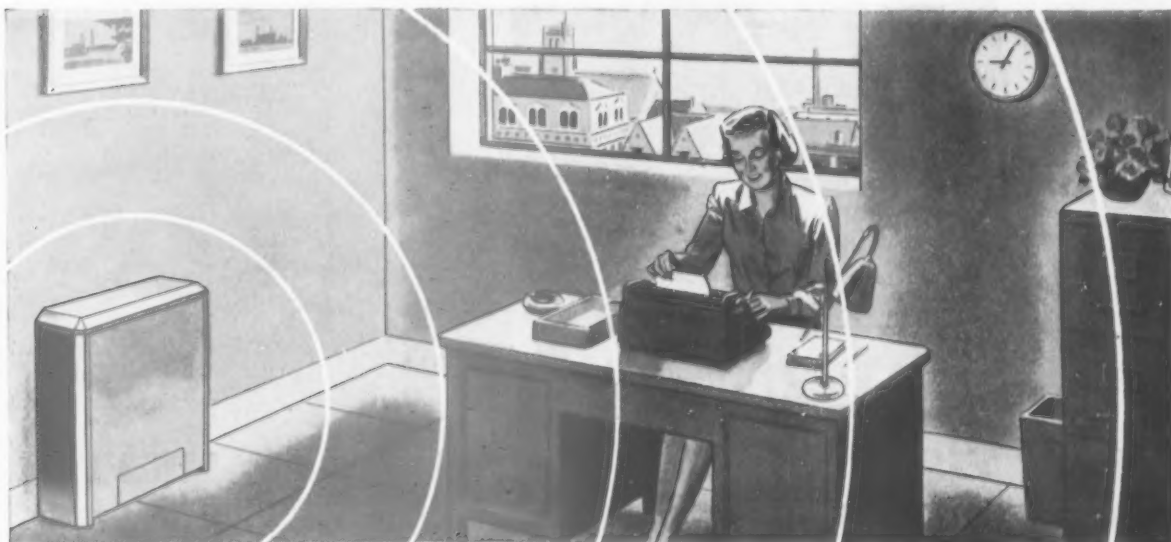
LB27



stores heat during night 'off-peak' periods

This entirely new G.E.C. heater, the 'Nightstor', stores heat during the night when favourable tariff concessions can be

obtained. It provides in effect a central heating system which needs no attention. It is cheap to install and economical to run.



gives out heat during the working day

Thoroughly charged during the night the 'Nightstor' heater uses no electricity during the day; but it continues to provide a consistent flow of beneficial warmth everywhere. Your staff are assured of immediately comfortable working conditions,

your fuel bill will be less and you will contribute to the prevention of "smog". This new and efficient heater is ideal for offices, schools, factories, hospitals etc. The 'Nightstor' heater can solve your heating problem this winter! Send for details.

 **Nightstor**

HEATER a G.E.C. product

THE GENERAL ELECTRIC COMPANY LIMITED, MAGNET HOUSE,
KINGSWAY, LONDON, W.C.2

The new Cooker *With the Open Fire!*



the **SOFONO**

OPEN FIRE COOKER AND WATER HEATER



The capacious oven with adjustable shelves and hot cupboard

The hob, hot plate, conservator cover and front towel rail

The Sofono Fire, showing the air control lever and removable front

The Trivet used as a safety closure cover

The Trivet as an extra boiling hot plate

For your customers shopping for a solid fuel cooker, this amazing appliance will take every trick. It cooks efficiently, it supplies constant hot water, it has a brand new idea in the triple-purpose trivet, and it has a really big open fire to sit at when the day's work is done. What more could any housewife want? It will pay you to stock against the demand that is sure to come for this nationally advertised cooker.

FULLY APPROVED BY THE MINISTRY OF FUEL AND POWER.



GRANGEMOUTH IRON CO. LTD., FALKIRK, SCOTLAND



RUBEROID

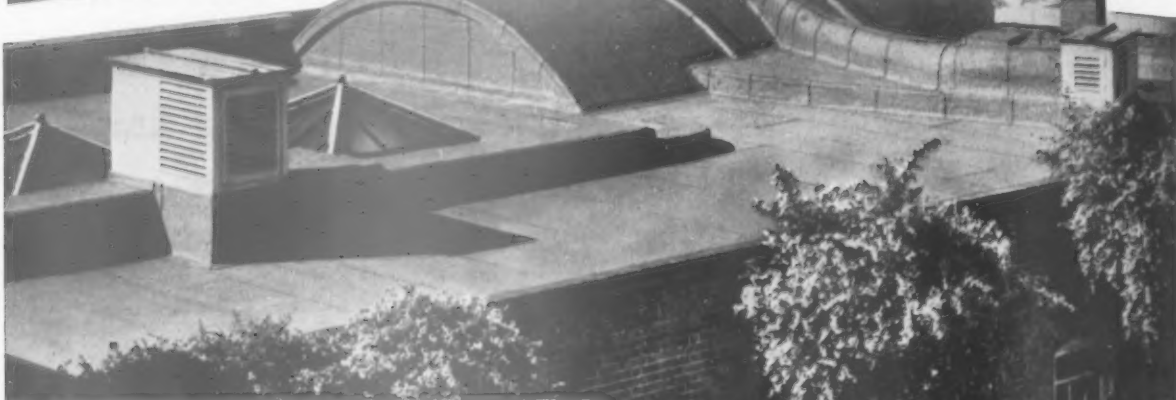
solved these roofing problems

Time after time, Ruberoid has provided the simple and economical answer to a roofing problem that would otherwise have called for a complicated and expensive treatment. Ruberoid is the answer whether the problem lies in the design of the roof as a whole or in the existence of awkward or unusual details dictated by the function or situation of the building.

Practically all types of roof and roofing detail are covered in the Ruberoid Standard Specification Catalogue (a copy of which will be sent free on request). Any queries outside the scope of this publication will be given the close attention of the Ruberoid Technical Department.

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Engineer, Southampton Harbour
Board : J. P. M. Pannell, M.B.E.,
M.I.C.E., M.I.Mech.E.

Municipal Offices,
Bromley, Kent.
Borough Engineer :
H. Cliffe, B.Sc.(Eng.)



R.118

The Ruberoid Contract Department



places its wide and long experience with all types of roofing problems freely at the disposal of architects; consultations at the design stage can, and often do, result in structural economy. The service operates from the following centres, conveniently situated throughout the British Isles:

BIRMINGHAM • MANCHESTER • NEWCASTLE-ON-TYNE
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THE RUBEROID COMPANY LIMITED, 93, COMMONWEALTH HOUSE, NEW OXFORD ST., LONDON, W.C.1

RUBEROID

ROOFING



Single and Multi-Storey Reinforced Concrete Integrated Construction

Designed to
Individual
Requirements

Unrestricted
Span



Maintenance
Eliminated

Fire Risk
Reduced

Sectional Factory at Stevenage. Archt.:— Chief Archt. Stevenage Dev. Corpn.

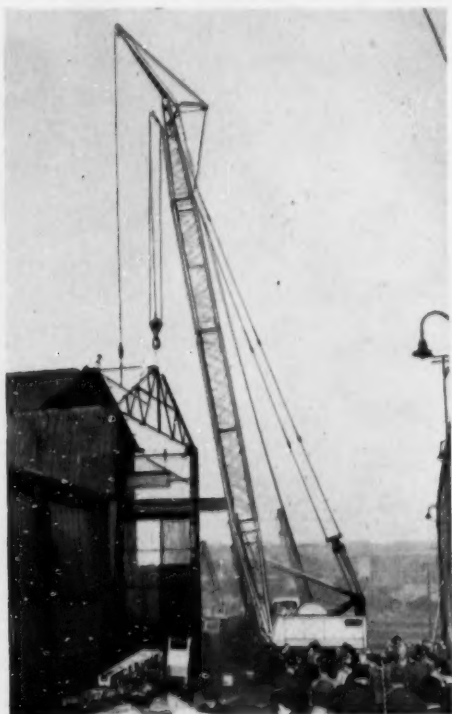
Telephone :
VIC 0336-8.

Write or 'phone

R. E. EAGAN LIMITED

1, ASHLEY PLACE, VICTORIA STREET, LONDON, S.W.1.

Telegrams :
Lambda, Sowest.



A lorry-mounted Coles crane, made by Steels Engineering Products Ltd., Sunderland. It has a 15-ft. fly jib which holds the small roof members, and an 80-ft. main jib which supports the roof truss whilst tightening up operations are in progress.

MECHANICAL AIDS TO PRODUCTIVITY

OUTPUT UP with no extra working costs

Mechanical handling is being used increasingly in the building industry to reduce costs and speed up contracts. This mobile tower crane, for instance—unlike the old rail-mounted affair—can operate anywhere on any site, move around the building . . . and even work inside it. Electrically operated, it generates its own power and is independent of trailing cables or power points.

If you want to know more about the latest labour-aiding devices read **MECHANICAL HANDLING**—the journal of industrial mechanization in which every form of mechanical conveying is described and illustrated by experts. To make certain of the current issue, complete and post the coupon right away.

TO:

A.B.N.A.

MECHANICAL HANDLING

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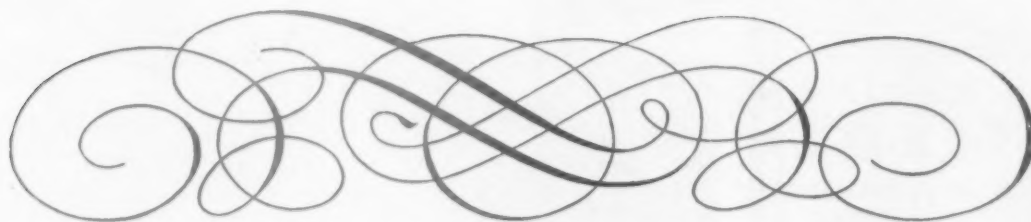
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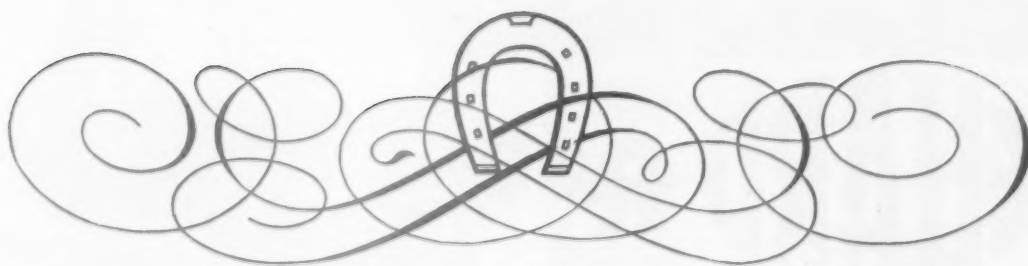
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Date

POST THIS FORM TODAY

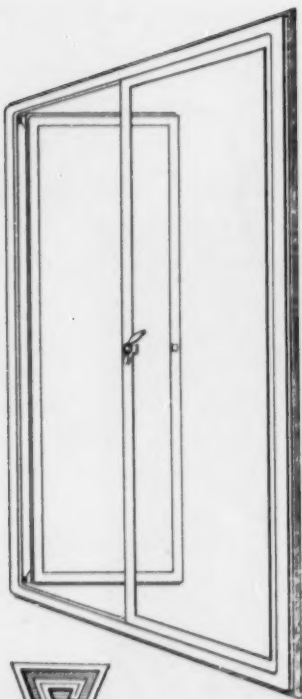


For
Superior Concrete
use
Ketton Cement



THE KETTON PORTLAND CEMENT CO LTD • ALBION WORKS SHEFFIELD

R/12



Admirable as steel is for window-frames, it is a material that needs expert handling to produce the perfect finished article. Clembro Metal Windows come from a firm with 30 years' experience and a nation-wide reputation.

Full Catalogue sent on request.

CLEMENT BROS., HASLEMERE, LTD.

Clembro Works, Wey Hill, Haslemere, Surrey. Phone: HAS 1193/4. Grams: Clembro, Haslemere.

'CLEMBRO'
TRADE MARK
**GALVANISED
METAL WINDOWS**



ELLARD
**ESTATE SLIDING
DOOR GEAR**

ELLARD "Estate" Sliding Door Gear has again been specified for a large housing estate: the People's Houses, Canterbury, Kent. "Estate" Sliding Door Gear offers maximum economy in use of space. For easy access and efficient action, garage doors should be fitted with ELLARD "Radial" Sliding Door Gear. The illustration below shows a typical domestic garage with sliding doors running on ELLARD "Radial" Door Gear.

ELLARD RADIAL

ELLARD Sliding Door Gear has been specified for flats and housing schemes by: London County Council; Canterbury and Peterborough Corporations; Eton, Moxborough, Rushden, Sawbridgeworth and Wellingborough U.D.C.s; Easington and Sedgfield R.D.C.s; and for British Railways Housing Estates, Southall; Coronation Bungalows, South Shields; Kytes Settlement Estate, Watford; Newton Aycliffe and Stevenage New Towns.
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B.M.J.

Vulcanite Roofing

for every type of Roof



Original patentees of Bituminous built-up-roofs

VULCANITE

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GLASGOW · LONDON · BELFAST

Denton's DENTOLITE

+ Self-Sterilising +
PAINT

The only paint of its kind in the world
PERMANENT PROTECTION AGAINST MOULD AND BACTERIA

DENTOLITE is the latest of all modern wall finishes. It is a finest quality NON-POISONOUS Emulsion Paint manufactured by a special process which makes it permanently fungicidal and bacteriacidal. Throughout its entire life DENTOLITE prevents the growth of mould and fungi on itself or surfaces to which it is applied and destroys disease-producing micro-organisms in contact with or deposited upon it. The properties of DENTOLITE are fully described, illustrated and documented in the following publications, copies of which will gladly be sent on request.



DB 1 "Self-Sterilising Surfaces Created by Decorating."

DL 12 "Bacteriologists', Pathologists' and Research Associations' Reports on DENTOLITE."

DR 7 "Field Test on DENTOLITE Self-Sterilising Paint by a National Research Association."

DR 6 "DENTOLITE Self-Sterilising Emulsion Paint—Its effectiveness against Tubercle Bacilli."

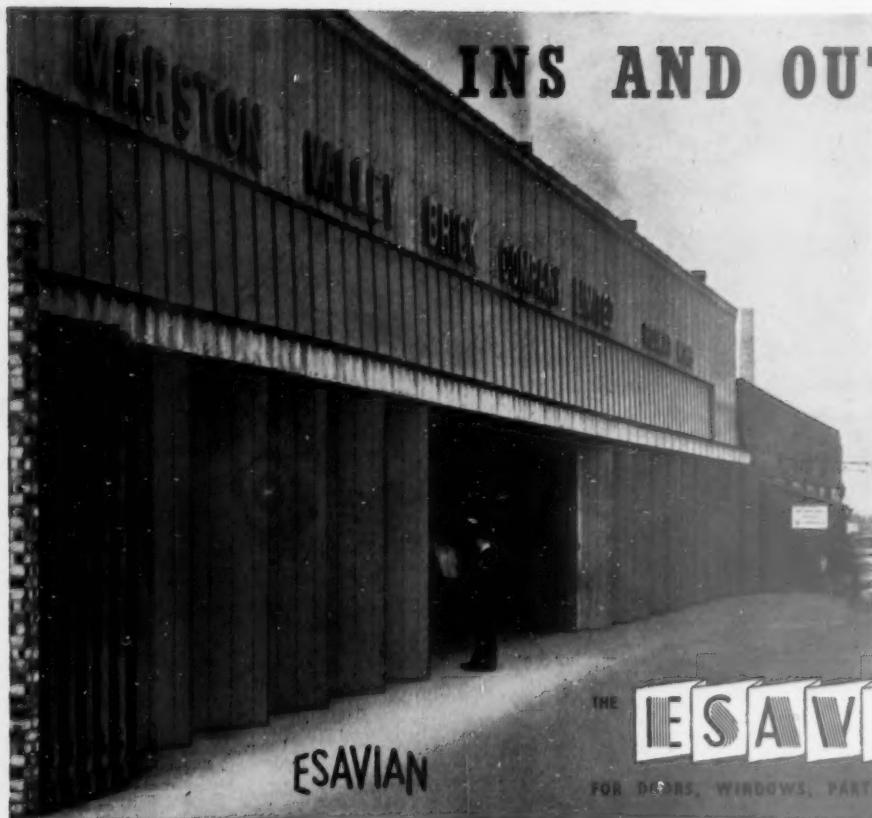
DR 5 "Investigation Into the Ability of Various Types of Paint to Suppress Microbial Growth."

DL 3 "DENTOLITE"—The perfect Satin Finish Wall Enamel."

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ABBAY ROAD, BARKING, ESSEX.



INS AND OUTS! (No6)

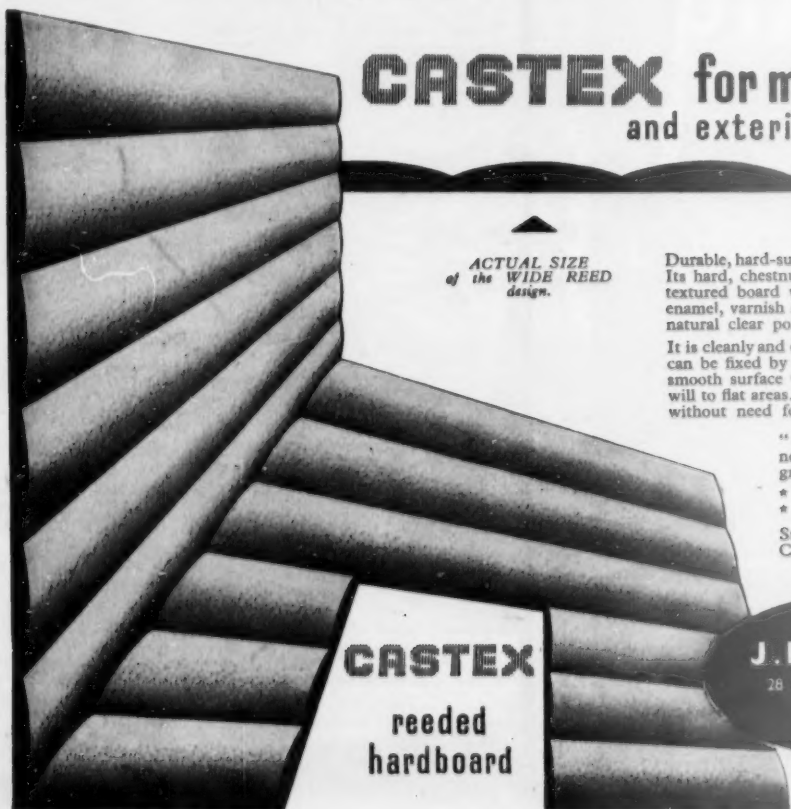
THE 'MARSTON VALLEY BRICK COMPANY' knows all the "Ins and Outs" of making good bricks—and without straw too! But for the "Ins and Outs" of their new garage they relied on the knowledge and experience of the Esavian organization.

At the touch of a button these doors, measuring 144 ft. long x 11 ft. high, slide and fold clear of the entrance. Another touch of the button and they close securely against wind and weather.

When you have doors to deal with, call in Esavian. Our experts can be a great help!

THE **ESAVIAN** PRINCIPLE
FOR DOORS, WINDOWS, PARTITIONS & FOLDING SCREENS

Esavian Limited, Esavian Works, Stevenage, Herts. Tel: Stevenage 500. 101 Wellington St., Glasgow, C.2. Tel: CEN 2369



CASTEX for modern interiors and exteriors

ACTUAL SIZE
of the WIDE REED
design.

Durable, hard-surfaced "CASTEX" is hardboard... PLUS. Its hard, chestnut fibres are compressed into a really close-textured board which offers an excellent surface for paint, enamel, varnish and cellulose finishes, and which is ideal for natural clear polishing.

It is cleanly and easily worked with ordinary carpenter's tools; can be fixed by normal woodworking methods, and its fine, smooth surface will adapt itself to curvatures as easily as it will to flat areas. Its fine clean-cut edges, too, meet perfectly without need for cover strips or joint mouldings.

"CASTEX," of $\frac{1}{4}$ " (3.5 mm.) standard thickness, is available in INTERIOR & EXTERIOR grades, and in the following designs.

* NARROW REED * WIDE REED *
* FLUTED * CHECKED *

Standard size: 9' 8" x 4' 0".
Check pattern: 10' 0" x 4' 0".

CASTEX
reeded
hardboard

J. EIDELMAN

28 BISHOPSGATE, LONDON, EC2.
LONDON WALL 6656

"CASTEX" will flameproof up to standard required by Local Councils.

it is not claimed

that a water service installation of "Yorkshire" Copper Tubes and "Yorkshire" Fittings ensures complete immunity from frost bursts under extreme conditions of cold—conditions can be such that bursts will occur whatever the metal.

but we do claim

that an installation of "Yorkshire" Copper Tubes and "Yorkshire" Fittings will give a greater measure of protection against burst pipes than any other metal—the reports we have been receiving confirm this.

another reason why
you should specify

"Yorkshire"

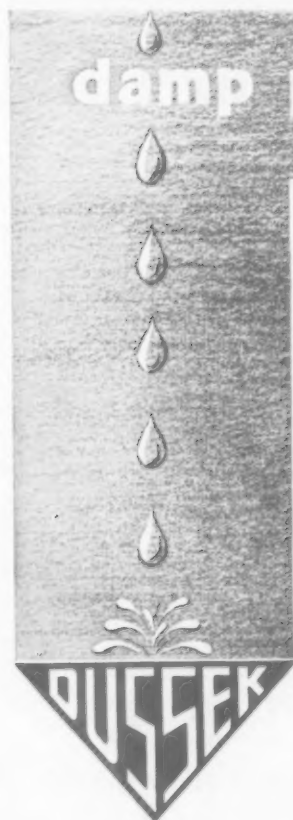
**COPPER TUBES AND
Capillary FITTINGS**



THE YORKSHIRE COPPER WORKS LTD

LEEDS & BARRHEAD

damp protection. .and Dussek



There is a Dussek Bitumen product to repel damp penetration from all vulnerable points in any type of Building. We will gladly give our advice on problems concerning protection of buildings from rain, rising damp or condensation, and Architects and Builders are invited to write for pamphlets listing the Dussek range and its applications.

PLASPHALT and BITITE · BITROL Bitumen Solution · PLASBESTOS Bitumen Emulsion · COLADE Bitumen Emulsion · WATERPROOFER P.B.7

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dm DBJ55



ARCHITECT: E. BERRY WEBBER, F.R.I.B.A.

OFFICERS CLUB PORTSMOUTH

METAL WINDOWS & DOORS

by



LUXFER LIMITED

WAXLOW ROAD HARLESDEN LONDON N.W.10

Telephone: ELGAR 7292

Telegrams: LUXFER, HARLES, LONDON

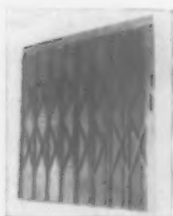
STOP!

Your insurance against excessive fire damage is not complete without the protection afforded by the Bolton Fireproof Shutter Door. This fireproof steel door halts a fire in its tracks and keeps it in solitary confinement until it can be dealt with. This important fire resistant factor has been achieved without sacrificing any of the attractive appearance and extreme ease of operation which are second nature to all Bolton doors.

The Bolton Fireproof Shutter Door passed with flying colours official fire resistance tests conducted by the Department of Scientific and Industrial Research and Fire Offices' Committee Joint Fire Research Organisation. A report of this special investigation is freely available, and we shall also be glad to send you a copy of our latest Catalogue A.B. '54 giving full details of the Bolton range of doors and gates.



FIRE GOES NO FURTHER



OFFICIAL TESTS

The above illustration shows the exposed face of the Bolton Fireproof Shutter Door before the official fire test.

After resisting heat from a furnace for two hours this door was still operable without undue exertion.

— with **BOLTON**
FIREPROOF DOORS

BOLTON COLLAPSIBLE
DOORS & GATES

LONDON OFFICE: 248 PERTH ROAD, ILFORD, ESSEX

BOLTON GATE COMPANY LIMITED, BOLTON, LANCs.

"EVERITE"
REGD TRADE MARK

ASBESTOS-CEMENT
**FLAT ROOFING
TILES**

The Ideal Surface for Flat Roofs

SOLAR
RADIATION

DURABILITY

GOOD WALKING
SURFACE

LIGHTWEIGHT

EASE OF
APPLICATION

LOW INITIAL COST

FIRE PROTECTION

CLEANLINESS



"EVERITE" Asbestos-Cement FLAT ROOFING TILES
provide excellent surfacing and protection
for the weathering membrane of flat roofs.
The illustration shows:-

Shell Mex House, London. Architects: Messrs. Joseph.

TURNERS ASBESTOS CEMENT CO LTD

A MEMBER OF THE TURNER & NEWALL ORGANISATION

TRAFFORD PARK

MANCHESTER 17



*Make certain
you know all about
'Paramount'*
REGD. TRADE MARK

**DRY
PARTITION**
PATENT APPLIED FOR NO. 15790/52



Write for illustrated brochure.

*The latest advance
in dry construction technique*

THE BRITISH PLASTER BOARD LIMITED

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NORTHERN SALES OFFICE
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WALLASEY, CHESHIRE
Telephone: Birkenhead 4411

. . . but what of the future?

As so many local authorities are proposing to declare large areas as Smokeless Zones those who plan for industry are bearing this in mind when specifying equipment for heating or raising steam. The works which you are planning today may be in an area which will later be declared a Smokeless Zone. Gas equipment installed now will ensure that production is not disrupted by alterations to comply with this legislation. Nothing beats gas for low installation cost and economical running allied to cleanliness. **. . . gas is clearing the air**





New Bakery at Dunfermline, Fife, designed by Kenneth Masson, A.R.I.B.A., Chief Architect S.C.W.S., and roofed with Bitumetal, Briggs Modern Development in Aluminium.



Colour is rapidly becoming an important and attractive feature in roof covering. Many factories, schools and hospitals now have the added advantage of a coloured finish in nature's own mineral granules, permanent and unfading.

Briggs Mineral Surfaced Roofings can be specified in Green, Grey or Red to harmonise pleasantly with the surrounding landscape. They are perfectly adaptable for pitched or curved roofs, on top of 'Bitumetal' as in the structure illustrated, or on any type of deck.

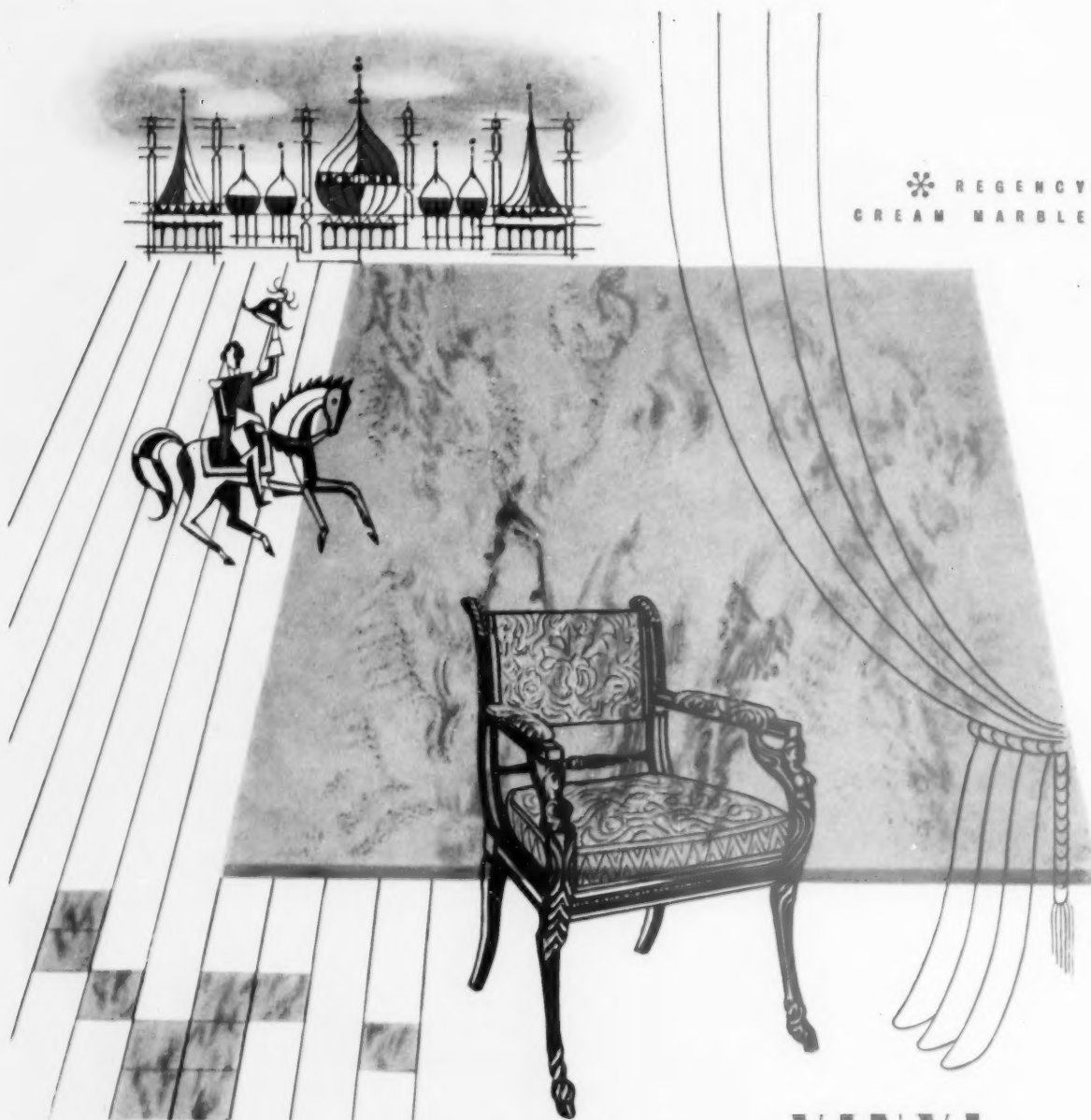
Ask our nearest Area Manager to show you samples and to provide you with the latest technical data.

Briggs
ROOFS

WILLIAM BRIGGS & SONS LTD

London, Vauxhall Grove, S.W.8 Regd. Office Dundee

OFFICES & DEPOTS ALSO AT ABERDEEN . BELFAST . BRISTOL
EDINBURGH . GLASGOW . LEICESTER . LIVERPOOL . NORWICH



✻ REGENCY
CREAM MARBLE

The opening years of the nineteenth century saw the beginning of mechanical invention, philosophic teaching, romantic novels, poetry and political forces that were to change the pace and face of the world. All this ferment of thought and action was reflected in the new furnishings of the time, now popularly known as English Regency, after the Prince who became Regent for George III. The colour of the Semastic Decorative Tile illustrated is a cream used in much of the Regency furnishings, now standardised by the British Colour Council who collaborated in the selection of colours for both Semtex Vinyl and Semastic Decorative Tiles. Architects will find that this dual range offers them the widest possible scope for colourful decorative schemes to satisfy both aesthetic and practical considerations.

✻ *One of the eighteen plain and marbled colours in the Semastic Decorative Tile range.*

158/6.7

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THE EYE OF THE BEHOLDER

SINCE the *Manchester Guardian* started a witchhunt for London's Ugliest Building with a list of candidates that included several highly respected buildings, an evening paper followed up with a leading article in the same vein, and in the *Sunday Times*, Miss Nancy Mitford stabbed her witty pen into le Corbusier.*

This perverse interest in ugliness in architecture may be the layman's expression of his general dissatisfaction with our art. To those whose retort is "They say—What do they say?—Let them say," there is no problem. But to others it may come as a salutary shock to know that there is widespread dislike of much architectural work even if merely on superficial grounds, and humiliating to know that people prefer being amused by inspired ugliness to being bored by mediocrity. Mr. Aldous Huxley made a pilgrimage to Salt Lake City to see the Mormon Tabernacle there, which he says has "a certain combination of oddity, dullness and monumentality unique, so far as I know, in the annals of architecture."†

The throwing open to the public of great houses like Ham and Hatfield has attracted crowds of ad-

miring visitors, starved of such sights, but they learn little from these that can help them to discriminate among the assorted buildings that constitute their ordinary urban environment—"Acts of God that have to be endured."

Visitors to the exhibition of photographs of Venetian Villas may well feel that architecture since those days has become a great deal less pleasing, and to offer the usual explanations about times changing and why we can't do that sort of thing now, is to risk being a bore.

The President of the Royal Scottish Academy in a recent talk to Edinburgh businessmen advised them if they felt disgusted with any form of art or architecture not to turn away, but to look and face it and see "what the artist was trying to get at." A nice way of saying don't shoot the pianist he is doing his best.

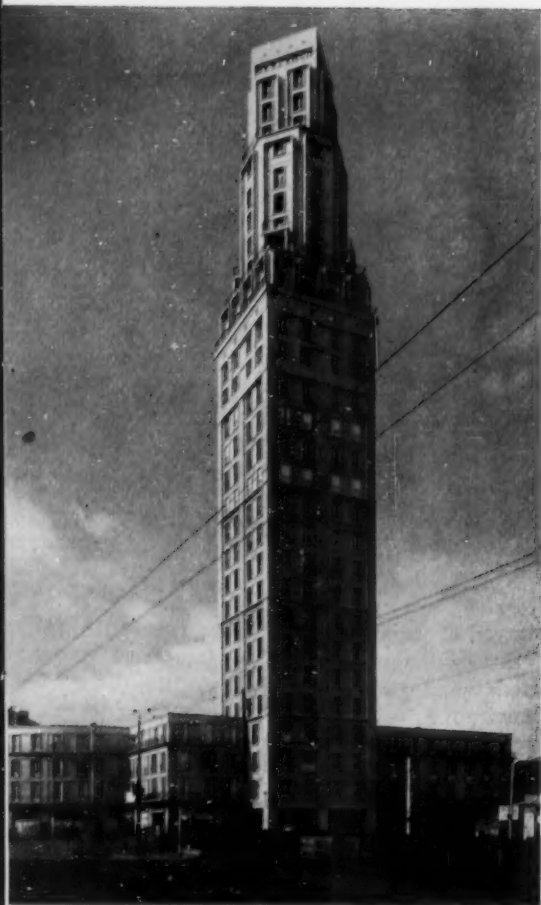
Of course there is also a great deal of public support for contemporary work of the best kind to balance but not invalidate the criticisms. According to the Director of the Whitechapel Gallery Mr. Henry Moore has many admirers of his work in the East End, and architecture has always had its ill-informed critics—wasn't Wren's work in the City after the Fire, described in 1700 as "Hideous Modern."

Nevertheless, criticism even when hostile is preferable to apathy, and during the next decade it is probable that architects will have to face demands not only for increased efficiency but also for design that gives more pleasure to the layman. A little more magic, so to speak.

The programme of lectures to be given at this year's Architects' Conference is well chosen to increase knowledge of building technique and materials. Perhaps later on the question of Aesthetics will also be considered.

* "I have seen his so-called Radiant City at Marseilles. It has a curiously dated pre-war look and is already very shabby. M. le Corbusier wants his blocks of flats to be self-contained with their own garages, shops, cinemas, and so on, in order to keep people out of the streets. He would like to deprive the human race of its most primitive pleasures, and if he has his way there will be no more bustling about in the sun with a shopping basket, no wandering into the garden, no happy, idle hours in the café. Human beings will sit, each in his little cell high up in the sky, waiting for the end. But the world is becoming more optimistic, and these prison-like barracks are beginning to seem thoroughly old-fashioned."

† "Faith, Taste and History." *Encounter*, February, 1954.



Block of Flats at Amiens
Flats at le Havre (below)



Atomic Centre at Saclay

EVENTS AND COMMENTS

AUGUSTE PERRET

AS briefly reported last week, M. Auguste Perret died on February 22 at the age of 80. Readers will not need to be reminded of the principal works of this great master in reinforced concrete, but it is curious to note that in spite of his world-wide reputation as an architect and the very many distinguished buildings which he built, the French national Press gave only the briefest references to his death. *Libération* headed its notice, "Death of Auguste Perret, the Prince of Concrete." The Paris edition of the *New York Herald Tribune*, which had a few lines on Perret, referred to the fact that he had helped

form Le Corbusier. By comparison *The Times* gave a full account of his life and works. Since the war M. Perret had been engaged on the reconstruction of Rouen and Le Havre, and progress photographs of these two great schemes have appeared from time to time. His last job of importance was the building of the atomic centre at Saclay, outside Paris. Perret combined being an architect with contracting in a way that I have never quite grasped. He worked in partnership with his brother Gustave and presumably it was in this way that he managed to produce such perfectly finished concrete work. He had a style of his own based on French tradition and a stark classicism. His personal stamp on a building was so clear that it is almost always possible to pick out his work with certainty.

I saw Perret twice, once when he came to London to receive the Royal Gold Medal in 1948, and then in Paris in 1950 when I visited him in his office. On the first occasion all those present were greatly impressed by the almost regal dignity with



which he bore himself and by his short and exquisitely phrased speech of thanks. When I saw him in his office he was still tremendously dignified, with beautifully curled white beard, loose and large semi-stiff collar and full bow tie of curious cut. He approached us down the great hall of his office without appearing to notice us until he was within two or three paces. Having urged us to sit down he himself fetched a draughtsman's stool and, climbing on to it, for he was a very small man, he said, "C'est un siège d'architecte." We discussed his work on the reconstruction areas and his lack of knowledge of English. He said he read an English newspaper every day but never spoke in English. I asked him what he thought of Le Corbusier's building at Marseilles, then in course of construction, "C'est un désastre," he said with a twinkle. In his opinion man was not happy living above the tree tops, and no building for living in should be higher than the trees. He regarded the disposal of household refuse as one of the greatest problems of modern civilization, and complained of the poor quality and quantity of the fuel which French newspapers provided for this purpose. When we left he

insisted on accompanying us up the great winding stair which leads to the door. I could not help feeling how nice it would have been to have had him for a grandfather. Doubtless the French architectural papers will shortly be giving us reviews of his life and works, and his great schemes at Rouen and Le Havre will soon be finished. Then we shall be reminded of the very great influence which he had on the French architecture and on the reinforced concrete technology of the world. Three of his recent buildings are shown opposite and a drawing of his half-completed church at Le Havre on this page.

TELEVISION

A friend of mine caught in the TV talent dragnet has changed overnight from a scoffer to an enthusiast, although he has not yet actually bought a set. He writes as follows: "The whole thing started in rather an unusual way by two people ringing me up. Not on different lines, not on the same line crossed, but on two extensions. It felt like, and probably was, a telephone interview. It was suggested that I knew a great deal more about a subject than I actually did, and while I did not exactly lie, I avoided disappointing them in their search for the right man.

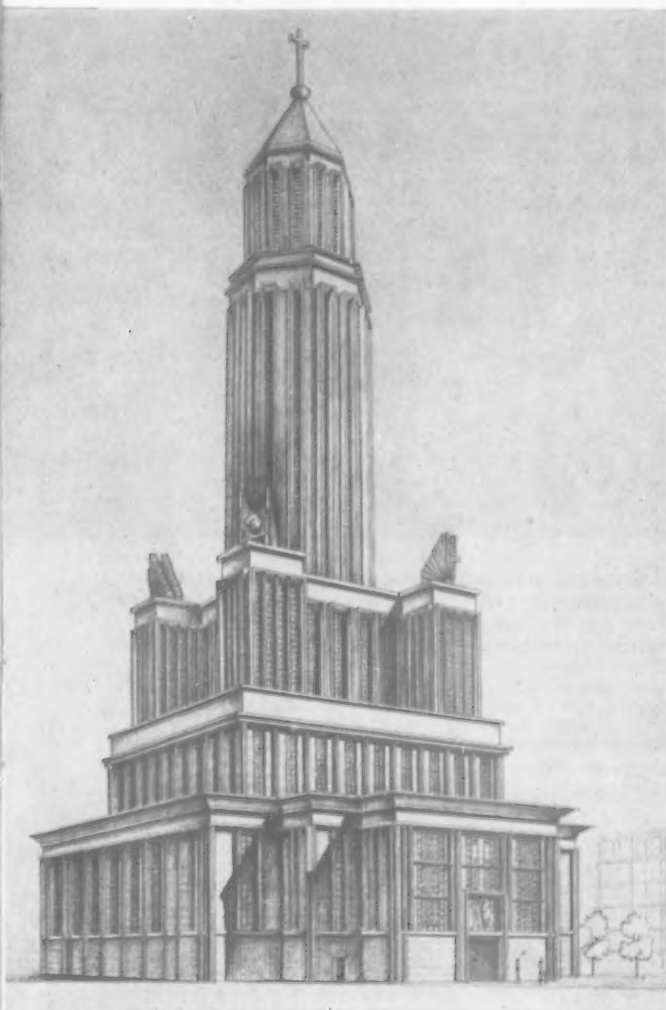
"From start to finish I was fascinated. To begin with everyone was quite charming. From the hall porter to the Director-General, and, believe it or not, I was introduced to him. I imagine that this is not quite the normal procedure. Not only were all the people I met very kind but they seemed to me to be deeply and seriously interested in their various jobs. The team working of all grades was really remarkable and might have been specially designed to reduce the butterflies-in-the-tummy feeling of performers to a minimum. I have to admit that the beautiful ladies of the make-up organization did my face instead of my hands, but that sort of thing can happen to anyone.

"Having taken part in a television programme connected with architecture and building I am greatly impressed with the possibilities of using this medium for interesting vast numbers of people in old and new buildings either by direct outside transmission or by the use of short films with commentaries interspersed with discussion.

"As examples of the very best in industrial design I wonder whether the C.o.I.D. has television cameras in its Design Review. They, and the quite noiseless electric carriages on which they move about, fascinated me, as did the whole method of production and direction.

"I do not know how long it will be before Graham Dawbarn's new buildings in Wood Lane will be finished but, having vacated the pleasant surroundings of the Alexandra Palace, the wretched TV staff seem to me to be working in the dreariest possible conditions. Lime Grove might have been designed as a set for an advanced type of nightmare with its interminable fire doors, steps up, steps down, lifts in unlikely places and passages which go this way and that and seem to get smaller and narrower as you go along them. Some of the offices are in dingy Victorian villas with inadequate natural lighting and although they have excellent front doors they are marked 'fire exit,' and all the *va-et-vient* has to pass through the honeycomb of the main building. How anyone ever does any creative work in such surroundings is indeed a mystery.

"I met one man who works in the part of the new building in Wood Lane which is already in use. He found it austere and like a hospital. Perhaps there was



Drawing of a church at Le Havre, now about half-completed. Architect: Auguste Perret.

nothing wrong in that, he said, but unfortunately it was a hospital 'in which nobody ever got better.'

"As a final design note I must add that to give my talk I sat on a chair designed by Arne Jacobsen."

GLASS IN THE HOME

On the face of it you would not think that people, least of all architects, needed to be encouraged to use more glass in the home. Indeed, after the recent cold spell people living in large-windowed, badly insulated houses, might be forgiven for thinking that rather too much glass was already being used in the home. However, the present special exhibition at the Building Centre draws attention, by picture and sample, to the various uses of glass in building, and although one is bound to admit that there is nothing very new in it, it does give those interested a chance to compare the pictures of the job with the actual glass used. The photographs, which have been admirably enlarged, illustrate some pleasant examples of contemporary domestic architecture.

The exhibition was designed by the Building Centre for Messrs. Pilkingtons, Messrs. Chance Bros., and Messrs. Fibreglass, and is neat, smart and easily assimilated.

McARTHURISM IN THE FIRE BRIGADE?

It is a queer coincidence that the Kent Fire Brigade has decided not to go on painting its fire engines the traditional red but to finish them in machined aluminium at the same time as the Otley, Yorkshire, Council has asked that the doors of its new fire station should be "toned down a bit" from the usual shade of red. The official reason for the first change is that the lovely red paint gets scratched when Kent fire engines go down narrow lanes, but the reason for the second is not given. It is, of course, possible that the Kent change is a parting shot from the retiring county architect, Mr. Sidney Loweth.

I think that both decisions are wrong. A red fire engine in a green countryside is a very pretty sight, even if it is slightly scratched, and a fire station without traditionally red doors would deserve to be obstructed by parked cars.

HOSPITAL ARCHITECTS

I met a doctor the other day who was complaining loudly that in his hospital no architect had anything to do with the building work, which was entrusted to a "divisional engineer." I said that I was under the impression that each Regional Hospital Board had an architect, and he said that that was so, but implied that they were somewhere up in the clouds. If this is generally true it is very bad; for the type of building work to which my friend referred required the very latest and most up-to-date information on hospital design and construction.

NO MORE HOPTON-WOOD

It seems almost incredible that Hopton-Wood stone is to be quarried no more. A bald announcement dated February 27 from the Hopton-Wood Stone Firms says that orders already accepted will be executed but that all other business is off. The firm will continue its other activities, including the supply of material for reconstructed stone. No reason other than "extensive and long-term reorganization" is given. The shock is more severe since it is only a short time since this firm brought



A new factory for Imperial Typewriters opened recently at Kingston-upon-Hull by Sir David Maxwell Fyfe. The architects for the factory were Priestman and Lazenby, and the General Contractors Quibell & Son Ltd., both of Hull.

out an expensive book about its products. There are, of course, other firms quarrying in Derbyshire, but the loss of a material so much used and so well loved is very much to be regretted.

FURNITURE DURABILITY

I see that the British Furniture Manufacturers' Federated Associations are introducing a new standard of durability mark. Judging by what I saw of the recent furniture show in London, they would be a great deal better employed getting their design right first, for there appears to be very little wrong with the wearing potentialities of their products. Indeed, some of the most monstrous things look as if they would last for ever.

ABNER

NEWS OF THE WEEK

Royal Gold Medal

Her Majesty the Queen presented the R.I.B.A. Royal Gold Medal for Architecture to Mr. Arthur George Stephenson, F.R.I.B.A., on March 2 at Melbourne.

Productivity in 1954

The new president of the L.M.B.A., Mr. R. S. Williams, addressing members of the L.M.B.A., Central Area No. 2, said that he thought the 5 per cent increased productivity during 1953 was very disappointing in view of all the aids to production now available in the form of greater mechanization, more use of prefabricated components, better supplies of materials, more detailed pre-planning and wider application of incentives. "I maintain," he said, "that if we bring our efficiency up to concert pitch there is no reason why, with the co-operation of the operatives, we should not increase productivity by 15 per cent this year."

L.C.C. Housing

The number of families rehoused by the London County Council during the year 1953 was 10,617. The number of families who still remain on the urgent list for rehousing was, on February 6, 1954, 34,925, of which total 2,594 had registered on or before December 31, 1946.

The total number of future dwellings for which sites have been approved or acquired, or for which powers of requisition have been obtained, is 41,483, including slum clearance sites.

Housing Progress: January

The number of permanent houses completed in the first month of this year was 24,595 compared with 20,584 in January, 1953, bringing the post-war total up to 187,273. The number of houses completed in Scotland was 2,953, an increase of 127 on the January, 1953, figure. The post-war total for Scotland is 187,273 permanent houses.

Kirby Housing Contract

Liverpool Corporation Housing Committee accepted on March 4 a tender of £4,822,510 for the erection of 3,511 dwellings and 444 garages at Kirby, Lancs. The firm whose tender is accepted is The Unit Construction Co., Ltd.

B.S.I. and Codes of Practice

New arrangements, which come into effect on April 1, have been concluded for the preparation of Codes of Practice. A note giving more details appears on page 301. Since this was printed a correction has been received giving the figure of 150 in place of 80 for the number of Codes of Practice for Buildings prepared during the last 12 years.

News in Brief

There was an attendance of over a thousand during the first week of the exhibition of photographs of Venetian Villas at the R.I.B.A.

The Queen has approved the appointment of Mr. William McMillan, R.A., as sculptor, and Mr. Louis de Soissons, R.A., F.R.I.B.A., as architect, for a statue of the late King "to be erected in a noble setting in London."

Work is to commence on the Guards Memorial Cloister, architect Mr. H. S. Goodhart-Rendel, P.P.R.I.B.A.

Urgent repair work is being carried out on the 800-year-old Bishop's Palace at Hereford because a recent inspection has revealed serious damage from the death-watch beetle.

Planning Permission: Successful Appeals

The Minister of Housing and Local Government has allowed the appeal by Mr. David L. Bain against the refusal of the Maidstone Borough Council of planning permission for a house, designed by Mr. Clifford Worthington, F.R.I.B.A., to be built at Conway Road, Maidstone.

At a local inquiry, conducted by Mr. J. D. Hossock, last December, Mr. Worthington accused the council of trying to impose a dictatorship of taste in house-design.

He cited the case of another modern design by a local architect, Mr. John Poltock, A.R.I.B.A., which was turned down by the council but allowed by the Minister on appeal.

The borough surveyor, Mr. Sidney Dixon, denied that the town was against modern architecture and said planning permission had been refused only because the proposed house would not be in harmony with existing development.

In a letter to Mr. Worthington, the Ministry says, "The Minister has considered the facts and representations made. Although the design of the proposed house is in contrast with existing development in the road, the Minister does not consider it is such as would justify him in refusing permission in this case. He has accordingly decided to allow the appeal and hereby grants permission for the erection of the dwelling."

Maidstone Borough Council have appointed Mr. Worthington as architect for the renovation of the town's Corn Exchange. The scheme includes the provision of a small theatre.

Mr. Harold McMillan has allowed the appeal of Mr. Anthony Jackson, Dip. Arch., A.R.I.B.A., against a refusal of planning permission by Brighton Corporation for a flat-roofed house on the cliffs at Saltdean. In giving his decision, the Minister says that having regard to the varied character of the development on the estate, the siting and design of Mr. Jackson's house would not justify him in refusing planning permission.

C O R R E S P O N D E N C E

Allied Societies

To the Editor of A. & B.N.

Sir,—Many architects in the provinces will soon be electing members to the councils of Allied Societies and we hope that we shall see a lot more life in the provinces in future. Whilst it is inevitable that London should be the focus of the profession's extramural activities, it should not be forgotten that more than four-fifths of its members live and work in the provinces. It is up to us, therefore, to see that the profession is a lively and influential organ wherever its members happen to live. There is no gainsaying the fact that a more prominent place in local public affairs would benefit the profession as a whole.

Allied Societies generally do a good job in organizing lectures for members, but is there not a strong case for other activities such as exhibitions (preferably in public places) and regular discussion groups? Exhibitions of live architecture should also form part of this activity. When a new block of flats in Birmingham, furnished in various ways, was thrown open to the public recently, more than 24,000 people visited it. This, plus the fact that the exhibition only lasted for a

fortnight, shows that the public is by no means indifferent.

Such activities would stimulate both the profession and the public. Gentlemen of the Provinces, it is for you to vote.

We are, etc.,
"FOURTEEN ARCHITECTS."

Birmingham.

Imhof's Shop

To the Editor of A. & B.N.

Sir,—Messrs. Westwood seem hard to please. You, Sir, are it seems naughty to give our new shop alterations adequate coverage in your highly esteemed journal. Tayler & Green are naughty in having such fun with lights, mirror and crazy paving.

If, however, a mere shop-keeper may intrude in an argument on such a high intellectual level may I point out that the object of running a shop is to sell goods and the object of a shop window is to get customers into the shop. This our new shop front has done with outstanding success. Since it was installed our sales have been the highest in our 109 years trading in New Oxford Street.

Messrs. Westwood state: "You cannot go in and make a selection of what you require without being watched

from without." This is nonsense if it is intended to apply to us as less than 10 per cent of our sales area on five floors is visible from the street. As for their reliable informant "a progressive shop-keeper" (!) he seems to me singularly unreliable and unprogressive. After all this is the second half of the twentieth century and not the 1930's.

So much for the facts of the commercial aspect. On the more delicate grounds of opinion and aesthetic merit I can only say that I like it... my staff like it... my customers and suppliers like it... my competitors envy it and that architects from Denmark, Sweden, Switzerland and Italy, as well as many in Great Britain, have been kind enough to praise it.

I am, etc.,
A. GODFREY IMHOF, M.S.I.A.

IN PARLIAMENT

Structural Steel Charges

Mr. Harold Wilson stated in a question to the Minister of Works that firms supplying structural steel were quoting identical tenders to public authorities, and mentioned a recent case in Lancs in which public money was involved. He asked the Minister to deal with this ring, either by referring the matter to the Steel Board or recommending a reference to the Monopolies Commission. Sir David Eccles replied that he knew that firms fabricating and erecting structural steel frequently quoted identical prices, as had apparently happened in the Lancs case. It had been the practice for many years for Government contracting departments to ensure, by costing and otherwise, that only a fair and reasonable price was paid for this work. The price of fabricated structural steel was not a matter for the Steel Board. The President of the Board of Trade was well aware of the situation, and would bear it in mind when further references to the Monopolies Commission were being considered. (Mar. 2.)

Legal Columns

Mr. Arbuthnot asked the Minister of Works what were the alterations being made to the pillars outside the Law Courts; what was the cost; and if he would bear in mind the need for eliminating unnecessary expenditure. Sir David Eccles stated that the outer surfaces of the columns had crumbled badly, and were being repaired at a cost of £131. If the stone were left to deteriorate the columns would, before long, have to be entirely replaced at much greater expense. (Mar. 2.)

Anti-smoke Devices

Mr. Sorensen asked the Minister of Housing and Local Government what record the department kept of devices which were claimed by their inventors to mitigate smoke pollution; whether apparatus about which he had sent details had been considered; and if the Minister would consider offering a

competitive reward for inventions capable of domestic adoption for this purpose. Mr. Marples, the Parliamentary Secretary, assured him that all suggestions the Minister received were carefully examined by the appropriate experts, and the one about which Mr. Sorensen had written to the Minister of Health would also be examined. But as for a competition, "a great many suggestions are received, and the Minister does not think it would be useful to offer a competitive reward for more." (Mar. 2.)

Scottish Special H.A.

Mr. Steele, asked the Secretary of State for Scotland what provision was made by the Scottish Special Housing Association to ensure that houses built for them by contractors were completed according to contract. Mr. Stuart told him that the association employed registered architects, clerks of works and a small staff of building inspectors to supervise work on houses being built by contractors on their behalf.

Mr. Steele also asked how many houses built by contractors on behalf of the Scottish Special Housing Association at Bellsmyre, Dumbarton, had not been completed according to contract. He was informed that the association's attention had been drawn to a house in this scheme where the internal paint work did not seem to conform to specification. The association were looking into this. (March 2.)

Remedy Still Sought

Mr. Steele asked the Secretary of State for Scotland what steps had been taken to improve the condition of the 49 aluminium houses in Dumbarton, in and around High Mains Avenue; and how far they had been successful. Mr. Stuart replied that a system of back-ground heating installed experimentally in 1952 in 11 houses at this site had not proved effective in every case. The matter was to be further discussed with representatives of the Town Council next week. (March 2.)

Air Raid Shelters

Mr. Albu asked the Home Secretary whether he had yet made any arrangements for the strengthening of basements in new buildings for the purpose of providing air raid shelters. Sir David Maxwell Fyfe stated that in the immediate future there were projects to which priority must be given in the allocation of civil defence expenditure, but this matter was under consideration. Mr. Albu observed that the matter had been under consideration for five years; and the more building that was done the fewer basements would be strengthened. Mr. Noel-Baker asked if the Home Secretary would consult with the Ministry of Transport about the desirability of using the basements of new buildings both for shelter space and peace-time parking of cars. Sir David Maxwell-Fyfe—"I have, I am, and I shall." (March 4.)

APPOINTMENTS

Mr. A. E. Desborough, of W. Hawkins and Son, Ltd., Old Fletton, was elected president of the Eastern Federation of Building Trades' Employers at the annual meeting at Cambridge.

Mr. Alexander McDonald, B.Sc., M.I.C.E., has been appointed Secretary of the Institution of Civil Engineers in succession to Mr. E. Graham Clark, C.B.E., who will be retiring this year.

York Courses on Protection and Repairs of Historic Buildings

A General Course on *Protection and Repair of Historic Buildings* will be held at St. Mary's Hotel, York, from March 22-April 3. The course is intended for practising architects, surveyors, clerks of works and builders, up to the maximum number of 21. A specialized course on *The Care of Churches* will be held at the same place, from April 6-13. The Director is Dr. William A. Singleton, M.A., B.Arch., A.R.I.B.A., A.M.T.P.I., and the Secretary is Mr. J. P. West-Taylor, M.A., St. Anthony's Hall, York (Tel. York 54711), from whom information about future courses may be obtained.

COMING EVENTS

The Royal Institution of Chartered Surveyors

March 15 at 5.30 p.m. Address on The Landlord and Tenant Bill, by The Rt. Hon. Sir David Maxwell Fyfe. At the Institution of Civil Engineers, Great George Street, S.W.1. Admission by ticket only.

The Housing Centre

March 16 at 6 p.m. Special Joint meeting, on the work of the Diploma Students of the Department of Town Planning, University College, London, on their scheme for the Redevelopment of an Area in the Borough of St. Pancras. Speaker, Arthur Ling, Senior Lecturer of the Dept. of Town Planning, University College. Chairman, Professor Sir William G. Holford, M.A., F.R.I.B.A., P.T.P.I. At 13, Suffolk Street, Haymarket, S.W.1.

Royal Institute of British Architects

March 17 at 5 p.m. "W. R. Lethaby and his Times," lecture by Professor Basil Ward, Lethaby Professor of Architecture at the Royal College of Art. Chairman, The Hon. Lionel Brett. At 66, Portland Place, W.1.

Reinforced Concrete Association

March 17 at 6 p.m. "Recent Research in Deformed Reinforced Bars," by Dr. K. Hajnal-Konyi, A.M.I.C.E., M.I.Struct.E., at 11, Upper Belgrave Street, S.W.1.

CURRIE HOUSE AND DUNKELD HOUSE, LONDON, E.14

For the Metropolitan
Borough of Poplar

architects:

FARQUHARSON & McMORRAN,
F./F.R.I.B.A.

CURRIE HOUSE, named after the well-known shipping company which has a long association with the Borough, is crescent shaped, 300 feet long, with a radius of 380 feet. It was designed to fit the acute angle formed by Abbott Road and East India Dock Road. Standing 80 feet high to the parapet, the building forms a commanding feature on the approach to London over Canning Town Bridge.

The block contains ten two-person flats, 72 four-person flats, and four six-person maisonnettes. The arrangement of the dwellings is of particular interest, access on each floor being by a central gallery with dwellings "staggered" in pairs on either side, each pair being separated from the next by a spacious open balcony. This scheme, used here for the first time, was put forward by the architects as a means of securing the economy of the ordinary "balcony approach" plan without its disadvantages. Thus there are only two staircases and two lifts serving 86 dwellings, but none of the rooms looks on to the approach gallery, and the external appearance is improved by the absence of long balconies. The possibility of residents being disturbed by noise from passers-by was met by insulating the gallery floor slab from the main structure, and by the use of solid brick partitions set in lime mortar.

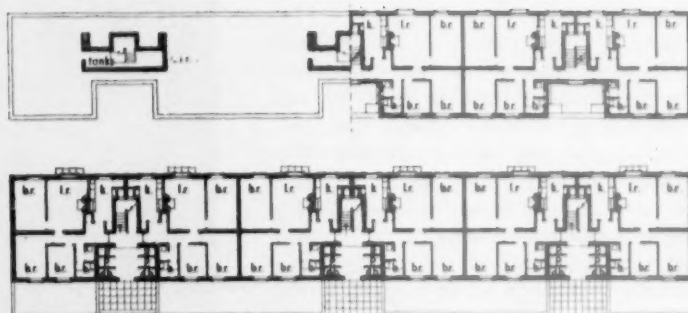
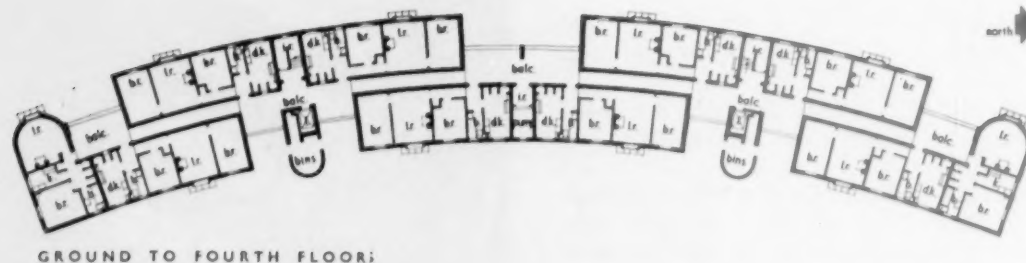
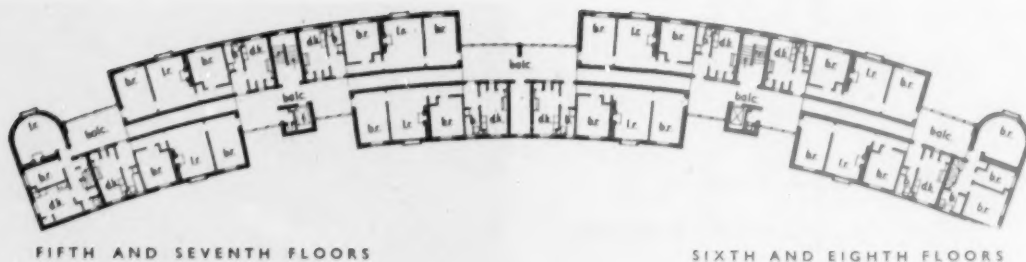
The building was begun in July 1952 and the flats were let in November 1953. Speed of erection was facilitated by the repetition of design throughout the nine floors. This enabled the reinforced concrete frame to be carried up at the rate of one floor every fortnight, the beams being precast off the site and married to the *in situ* work by specially designed joints. For hoisting purposes the contractors used a 60-ton excavator fitted with jibs of increasing length as the building rose. The foundations are on *in situ* reinforced concrete piles about 40 feet long.

All dwellings have all-night-burning solid-fuel grates in the living rooms, with back boilers supplying domestic hot water. Fuel is delivered through outside hoppers to bunkers opening into the kitchens. Heated drying cupboards and Scotch airers are provided to enable laundry work to be done within the dwellings. The entrance lobbies are large enough to take perambulators. No private external balconies are provided, but the living room windows, opening to the floor, and fitted with



Looking up at Currie House. The balcony fronts are precast concrete slabs with natural finish.





Currie House

and

Dunkeld House

GROUND, FIRST AND SECOND FLOORS

SCALE: 48FT = 1IN

guard rails, give open-air conditions when required. Two refuse chutes discharge from each floor into portable containers at street level.

Dunkeld House (named from the street, now closed, which joined Abbott Road at this point) contains 18 five-person flats on three floors, approached by three staircases. The dwellings are similar in all respects to those already described, but the living rooms are larger and there are "working kitchens" in place of the "dining kitchens" provided in Currie House. As there are no lifts, perambulator stores are provided off the ground floor entrance lobbies. Refuse is collected in bins for which stores are provided on the ground floor.

The area between the blocks will be maintained as a grassed open space. When East India Dock Road is widened, as intended, and the Ironbridge Tavern removed to a new site, this open space will be extended to the foot of Canning Town Bridge. The open space to the west of Currie House has been allotted to a nursery school and will be used temporarily as a children's playground.





The view above shows Currie House from South-West, while the picture opposite shows the same block of flats from South-East. The whole scheme was carried out under the general direction of the Borough Engineer and Surveyor for Poplar, W. J. Rankin. The Assistant Architect in charge of the work was G. H. Thompson. The reinforced concrete frame was designed by W. V. Zinn, Consulting Engineer. The Quantity Surveyors were E. C. Pinks & Partners.

Currie House and Dunkeld House

General Contractors :

SIR ROBERT

McALPINE & SONS, LTD.

Asphalt work : Lawford Asphalt Co., Ltd.
Bitumastic Paint : Wales Dove Bitumastic, Ltd.

Bricks : National Coal Board and London Brick Co., Ltd.

Cast-iron work : Carron Co.

Electrical installation : Iverson Electrical, Ltd.

Floor tiling : Semtex, Ltd.

Fuel hoppers : Stopper Manufacturing Co.

Garden work : Arthur H. Brown & Son.

Gas installation : North Thames Gas Board.

Glazing : Faulkner Greene & Co., Ltd.

Inscription : Mr. Sydney Pool.

Insulating screeds : Checcol Processes, Ltd.

Internal plumbing and drainage : Stitson White & Co., Ltd.

Ironmongery : W. N. Froy & Sons, Ltd.

Joinery : Rutherford Geake & Co., Ltd.

Lifts : Hammond & Champness, Ltd.

Lightning Conductors : J. W. Gray & Sons, Ltd.

Lettering : George Mansell.

"New Era" grates, tiled surrounds, refuse chutes : Broad & Co., Ltd.

Paint and distemper : Imperial Chemical Industries, Ltd.

Painting : Alfred Bagnall & Sons, Ltd.

Piling : John Gill Contractors, Ltd.

Plastering, etc. : J. and B. Abbott (Plasterers), Ltd.

Portland stonework : South-Western Stone Co., Ltd.

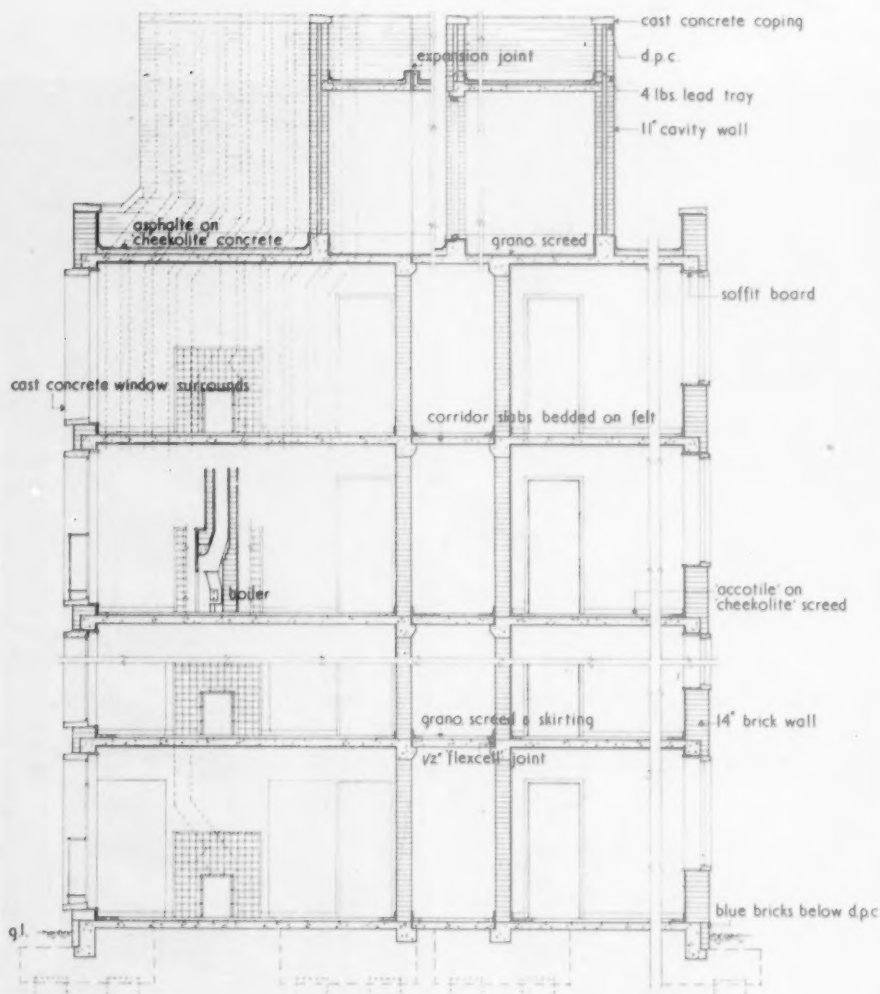
Reconstructed stone : Enfield Stone Co., Ltd.

Steel windows : Mon's Metal Window Co., Ltd.

Sanitary fittings : Stitson Sanitary Fittings, Ltd.

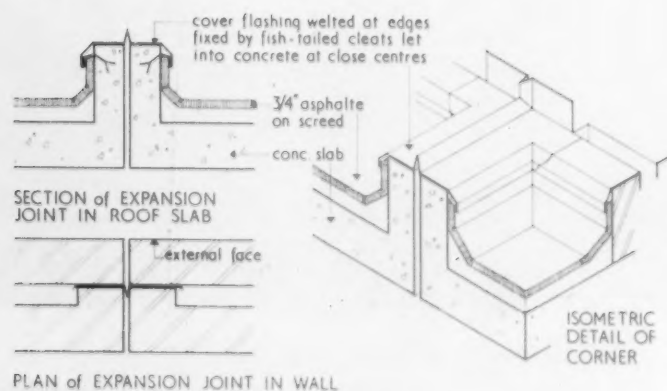
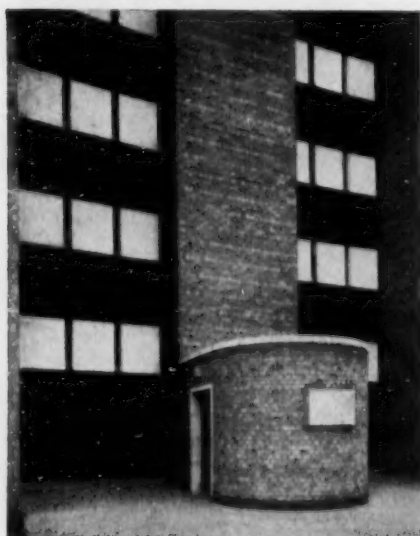
Waterproofing : RIW Protective Products, Co., Ltd.

Wrought iron work : S. W. Farmer & Son, Ltd.



TYPICAL SECTION. SCALE: $\frac{1}{4}$ " = 1 FT

Refuse collection and lift shaft



EXPANSION JOINTS. SCALE: $\frac{1}{16}$ " = 1 FT

POINTS FROM PAPERS

*Prestressed Lattice Steel Girders**A paper presented to the Institute of Structural Engineers on February 25**by R. A. SEFTON JENKINS, B.Sc., A.C.G.I., A.M.I.Struct.E., A.M.I.C.E.*

1. *Synopsis.* The prestressing of steel lattice girders has been done in the past by Professor Magnel and by F. J. Samuely. The method used by Professor Magnel is to keep straight or curved high tensile wires within the depth of the girder. The main advantage being that, for a given load high tensile wires are cheaper than mild steel. If the prestressing device is kept within the depth of the girder it is not possible to develop tension in either of the booms due to this prestressing. If the prestressing device is brought below the bottom chord (assuming the girder is to take vertical loading) then the bottom chord is put into compression and the top chord into tension by the prestressing.

Unlike prestressed concrete, where the elastic deformation due to the application of an external load produces practically no change of the load in the prestressing wires, with a steel beam the effect is considerable and is in fact a great advantage as the greater the load the greater the force in the prestressing bar.

The system has also been used on a factory at Harlow New Town, where 60ft span girders with a largest individual member of a $1\frac{1}{2}$ in \times $1\frac{1}{2}$ in \times $\frac{1}{4}$ in angle have been built.

2. *Introduction.* The first published account of the use of prestressed steel structures in this country was by Professor Magnel when he read a Paper before this Institution in 1950. He showed if the bottom chord of a lattice girder were prestressed with high tensile wires that economies were obtained.

Since then considerable work in this field has been carried out by F. J. Samuely. The latest example of his work is a garage in Wigan.

The main advantage described by Prof. Magnel was that

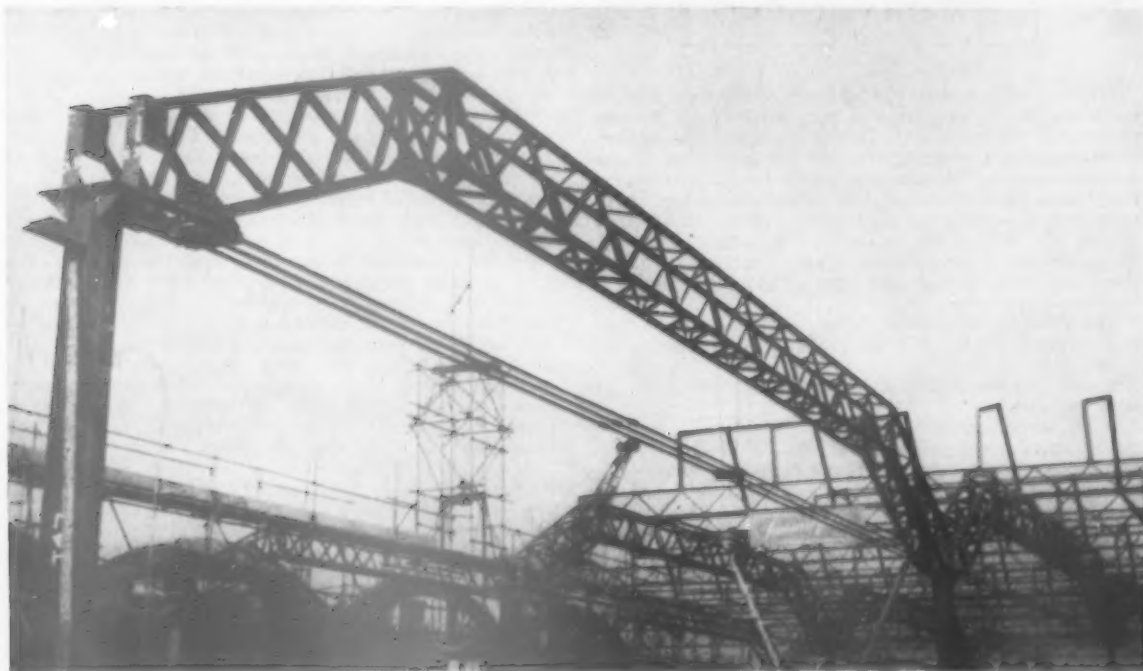
the cost to stress ratio for high tensile steel is lower than for mild steel.

As has been pointed out by Mr. Samuely, one of the objects of any prestressing should be to counteract the forces in a structure due to the applied loads and to make the forces in any member what you want them to be. If a lattice girder is prestressed so the prestressing force is on the neutral axis of the girder along its whole length, then the effect is merely to put both chords in compression. If, however, the prestressing force is made to deviate from the neutral axis, in addition to equal compression in the chords, a moment is induced into the girder. It is thus possible to make this moment act against the moments induced by the loads. If the prestressing device is curved then it can be made to produce the maximum effect where it is most wanted. In addition, the curve will reduce the effect of the shear forces as in prestressed concrete.

If the prestressing is kept within the depth of the lattice girder the effect of it is to induce compression only into both booms. However much the prestressing deviates from the centre line of the girder, it is not possible to induce tension, as the compression on the two booms will always be more than the effect of the moment. If, however, the prestressing is brought outside the depth of the girder, tension can be developed.

Donovan H. Lee and O. J. Masterman touched very briefly on this idea in the discussion arising out of Professor Magnel's Paper.

3. *Principles.* The method of prestressing discussed in the remainder of the Paper is confined entirely to cases where the prestressing device is below the bottom chord of a lattice.



Prestressed lattice steel girders in a factory in course of erection for Standard Telephones and Cables Ltd., at Harlow. Architect Planner: Frederick Gibberd. Executive Architect: Victor Hamnett. Steelwork Contractors: Sommerfelds Ltd. General Contractors: Wilson Lovatt Ltd.

If this is done, a set of conditions occurs which is comparable with those obtained by prestressing a rectangular concrete beam; for instance, it is well known that it is possible to prestress against the dead load with a concrete beam and a set of conditions as shown in Fig. 1 is obtained.

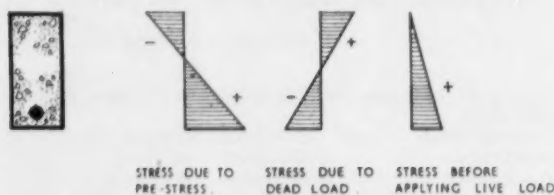


FIG. 1

If a prestressing force is applied to a steel lattice girder so that the force is below the bottom chord of the girder, the same effect can be obtained (see Fig. 2). The effect of

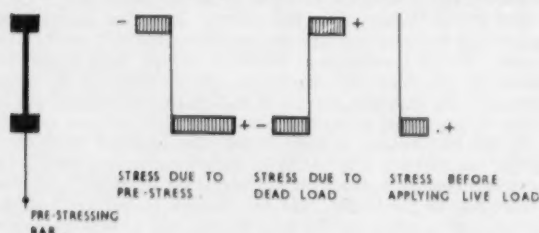


FIG. 2

the prestressing on the girder can be divided into, first, a moment tending to hog the girder, and secondly a compression divided equally between the two chords of the girder.

One method of obtaining this effect is to hold the prestressing device away from the bottom chord in the manner of a queen post truss (Fig. 3).



FIG. 3

When a load is applied to a structure of this kind, whether the lower bar is prestressed or not, this load will increase the load in the lower bar. In this respect the prestressing of steelwork has advantages which are not found in prestressed concrete, because very much smaller prestressing forces need be applied under no load or partial load conditions than are actually in the structure under full load conditions, and, also, as will be shown later, since the forces in the girder due to the prestressing are in opposition to those due to the external load, any increase in the one causes an increase in the other.

The effect of this, when the bottom bar is prestressed, is to increase the force in the prestressing bar as the load is increased.

So far, only one section along the length of the girder has been considered.

If the girder carries a uniformly distributed load along its length, the compression and tension in the top and bottom chords will vary parabolically along the length of the girder. It is desirable that the prestressing device should counteract this with a tension in the top chord and a compression in the bottom chord that also vary parabolically. It would be ideal if it were possible completely to cancel out both these forces. Unfortunately by this method it is not possible to do so completely. As has been mentioned above, the effect of the prestress is to induce in effect a compression and moment into the girder, so that there will always be more compression in the bottom than tension in the top.

Taking a queen post truss, the tension induced in the top and bottom chords will vary along the length as shown in Fig. 4. The same variation along the length of the girder

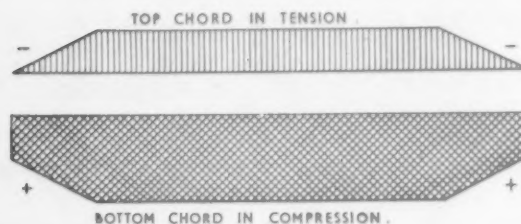


FIG. 4

can be obtained by bending the girder, as in Fig. 5.

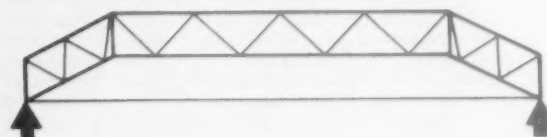


FIG. 5

A closer approximation to a parabolic variation along the length of girder can be obtained by superimposing two sets of prestressing, see Fig. 6.

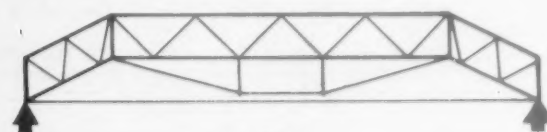


FIG. 6

By varying the amount of prestress in each system a very close approximation to a parabola can be obtained.

Needless to say the maximum stresses in the girder do not necessarily occur when the maximum load is spread along the full length of the beam, but, as in suspension bridges and other redundant structures, the maxima at different sections occur when a portion or portions are loaded.

4. *Factory at Harlow, Essex.*—The factory will eventually have a floor area of 156,000 sq ft. The first stage of 105,000 sq ft includes an area 100ft x 210ft of concrete shell roof, flanked on either side by two areas of monitor light factory 80ft x 240ft.

The monitor light portion consists of 60ft span prestressed steel beams at 24ft centres between which light secondary beams span, supporting either monitor frames or flat roofing.

The whole of the steelwork apart from the columns and a few items like gusset plates is fabricated from High Tensile Steel angles manufactured by re-rolling discarded railway lines. A number of tests on these angles have shown that both in compression and tension they are rather stronger than if they were made of steel to B.S. 548. However, for simplicity the stresses that are specified for steel to B.S. 548 in B.S. 449 are used in design. It has been found that for roof beams, trusses, etc., even with unstressed lattice beams, the form of construction that has been developed shows economies over mild steel construction. When the beam is prestressed the savings are even greater, and, of course, the longer the span the greater the saving.

The method of fabrication of the High Tensile lattice beams is interesting. The angles forming the beam are cut and the holes automatically punched. As the depth of various lattice beams has been standardized to four standard depths, the number of fixtures necessary is a minimum, especially as the depths are all multiples of each other. The parts are then assembled in a jig and the whole placed on a roller table. Each joint of the lattice then passes under a squeeze riveting machine which automatically squeezes the rivet and moves the whole on to the next joint. Small rivets up to 1/2 in diameter are squeezed cold; with larger sizes an additional step is introduced, just prior to squeezing the rivet is heated by means of two electrodes.

In the original design the girder was prestressed by two

systems. The prestressing force in this scheme was obtained by tightening balloon cables with rigging screws. The cables had been produced during the war for balloon barges and were extremely High Tensile Steel wires (145T/sq in ultimate) of 6/0.72in construction and galvanized. In the final scheme 1½in diameter bars of mild steel were used. As was mentioned earlier the object of this double prestressing is to produce a bending moment diagram due to the prestress that resembles the bending moment diagram due to the applied forces as nearly as possible. Owing to the originality of the idea Harlow Development Corporation and the Steelwork Contractor decided to load test a pair of prototype girders. Harlow Development Corporation's client decided for various reasons completely unconnected with any structural aspect that they did not wish to have two systems of prestressing. The girder was hurriedly redesigned; as will be seen, this resulted in a considerable increase in the amount of steel necessary in the girder, not only in the booms for bending but also in the diagonals for shear. In this particular case it is possible to prestress each girder before the application of any dead load. The stress in some of the members approaches the allowable limit. Obviously if it had exceeded this limit the method would be to prestress the girders after the application of the whole or part of the dead load. The girders were initially sent to the site in three parts, the centre 40ft length and the two outer sloping portions. These were assembled and the prestressing bars attached. Later complete 60ft lengths were riveted together in the factory thus cutting out the need for fitted bolts at the corners. The bars had turn-buckles incorporated in them which were tightened until they were carrying the required tension. The tension was measured by measuring the strain with a strain gauge designed to fit into small holes drilled in the bar. The girders were hoisted into position and the work completed in the normal manner.

Conclusions.—It may be thought by some that, where steelwork is prestressed within the depth of the girder, the economies that are produced on paper by the savings in steel are to a large extent offset by the extra work that is involved, especially as this is of an unusual character. It is, however, claimed by Prof. Magnel that this is not so.

One of the difficulties in assessing the savings made by any new idea is the basis of comparison. It is usually difficult to produce say, an unstressed steel design to compare with a prestressed design which is equal in all respects, which is as carefully designed, and which fulfils all the same requirements exactly. In the case of the factory mentioned above the contract was awarded on the basis of competitive tendering for the steelwork as a whole including design.

As far as the actual prestressing operation itself was concerned it was found that two junior Engineers and a labourer could prestress eight girders in a morning without undue hurry.

It might be thought that the overall depth of the girder, including the prestressing, is greater. But taking the case of the Harlow factory the total depth is approximately 6ft for a 60ft span—which is the same depth as a conventional mild steel girder might be. However, the actual girder itself

is only 2ft 2in deep instead of 6ft so that instead of having struts in the lattice of the order of 12ft long, they are only 4ft long, so that smaller and more economical members can be used.

Appendix

Method of Calculation.—The method used to solve the structures that have been encountered so far, has been with the use of strain energy. The structure shown in Fig. 6 is basically a structure with two redundancies. The prestressing bars are taken as the redundant members and the prestress in the bars is treated as an initial lack of fit of the bar. The girder can be analysed either as a beam with a bending moment or as a pin-jointed structure with forces in each member. The answer is much the same in either case.

The first move is to find the differential of the strain energy of the whole structure with respect to each redundancy. Expressions in the following form are obtained:—

$$\frac{dU}{dR_1} = -aW + bR_1 + cR_2 = P_1$$

$$\frac{dU}{dR_2} = -dW + eR_1 + fR_2 = P_2$$

where a, b, c, d, \dots , are constants depending on the shape, etc. R_1 and R_2 are the loads in two separate prestressing systems under a load W .

From inspection it can usually be seen what prestressing forces are required under maximum load. These are inserted together with appropriate value of W , giving values for P_1 and P_2 . The latter will both be constant for all values of W .

It merely remains for the values of R_1 and R_2 to be calculated for various types of loading and the forces in the members checked to see that the structure is safe.

For instance, if the beam is straight and the prestressing in the form of a queen post as below, an expression as follows can be derived.

$$\begin{aligned} \frac{dU}{dR} = \frac{DL}{12E_B I_B} \{ & RD(3 - 6rs - 8r^2s + 12r + 12r^2) \\ & - \frac{wL^2}{8}(4 - 4rs^2 + rs^3 + 8r) \} \\ & + \frac{R}{A_C E_C} \left(L + \frac{2d^2}{R} \right) \end{aligned}$$

where E_B = Young's Modulus for the Beam.

E_C = Young's Modulus for the prestressing arrangement.

I_B = Moment of Inertia of the beam.

A_C = Area of the prestressing arrangement.

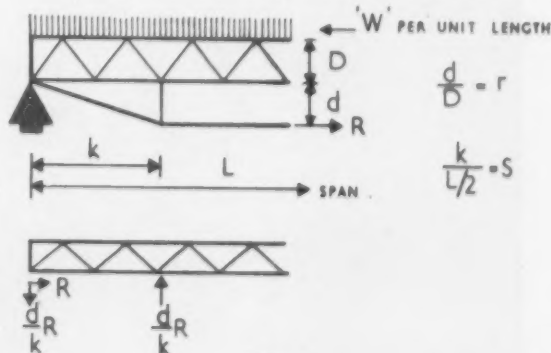


FIG. 7

It should be noted that not only is the bending moment in the beam considerably reduced by prestressing but also that the shear up to the queen post strut is reduced.

Prestressing the girders on the ground at Harlow



New Main Entrance

SHIRE HALL, SHREWSBURY

C. H. SIMMONS, A.R.I.B.A., Dip.T.P.,
COUNTY ARCHITECT, SALOP

T. C. RALPH, A.R.I.B.A.,
CHIEF ASSISTANT ARCHITECT

MARY K. W. READER, A.R.I.B.A.,
ASSISTANT ARCHITECT

THE old restricted entrance opened into an underlit hall where the visitor looked in vain for a source of information and direction and where the main staircase was hidden by a wooden screen, in addition to which dry rot was found in the existing lintels over the entrance. It was decided that a new entrance should be built which would also form part of the Council's Coronation Year Activities.

The two stone columns which flanked the original doorway, have been taken out and the new widened entrance has an inviting character in which cast bronze



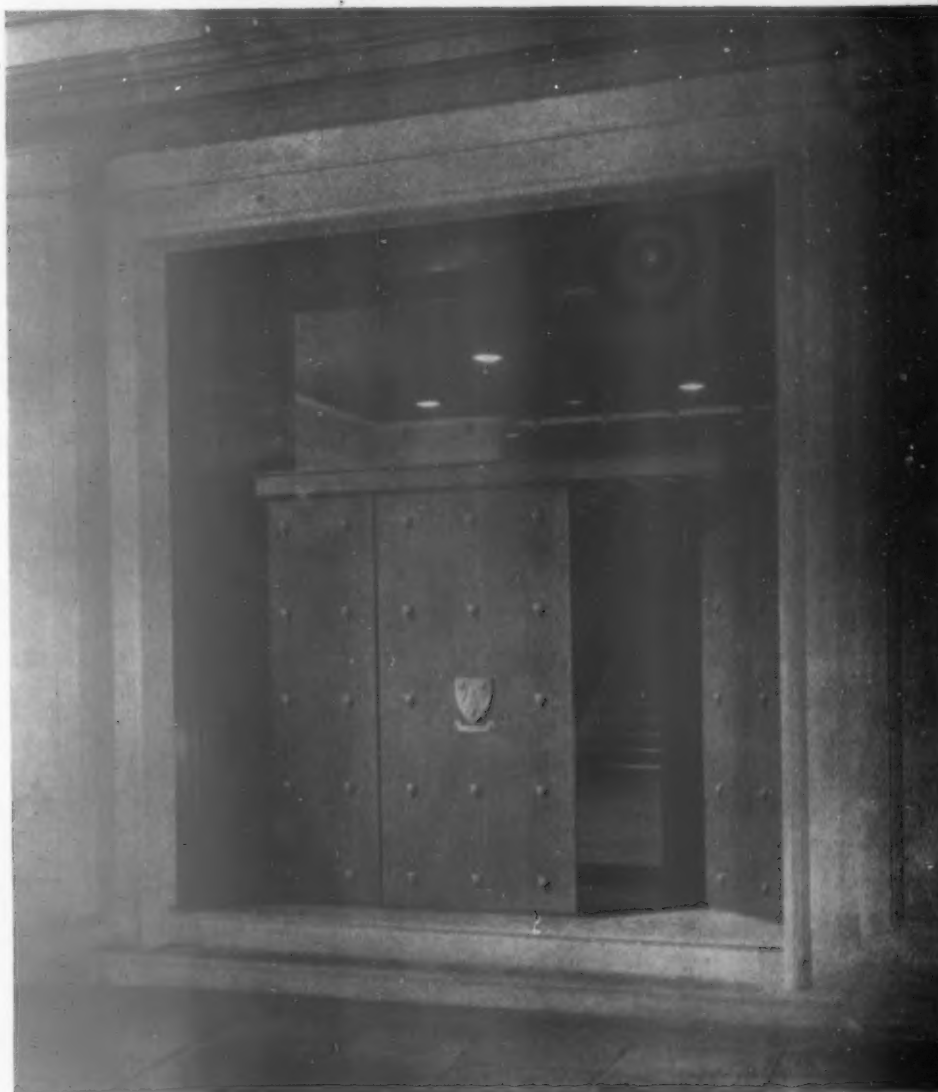
View through outer doors before conversion

leopards' heads have been introduced as a very appropriate form of decoration, and the Shropshire coat of arms forms a central feature. The whole of the new entrance is completed by the addition of new stone steps and paving and surrounded by a moulded stone architrave.



View through outer doors after conversion

*The main doors :
one leaf open*



*View of main entrance through
old Market Hall archway*



The outer doors fold back forming panels on either side of the entrance during the daytime, leaving the inner glazed doors exposed to view. Large glass fanlights to both sets of doors ensure adequate day lighting to the entrance hall, and recessed lights in the lowered ceiling cater for lighting after dark.

Inside, the oak screen has been removed, opening up the main staircase, and two telephone booths have been incorporated in the new design in place of the old one which was situated under the staircase, which space is now used for a new enquiry counter.

A wood block floor has been laid over the old stone slabs, and with the addition of rubber on the staircase, the transmission of sound to the court rooms has been greatly reduced. Heating to the entrance hall is by a convactor heater housed in an internal recess alongside the entrance lobby.



View looking towards staircase after conversion

**SHIRE HALL
SHREWSBURY**

**Remodelling
of Main
Entrance**

Same view before conversion



Building Contractors :
Shrewsbury Building Contractors, Ltd.

Electrical Engineers :
G. H. Smallwood & Co., Ltd.

Heating Engineers :
Scull Bros., Ltd.

Joinery and Entrance Doors :
H. H. Martyn & Co., Ltd.

Painting and Decorating :
Pugh & Sons.

Stair Tread Coverings :
A. Evans & Son.

URBAN TRAFFIC CONGESTION

Planning for Existing Conditions

BY S. ROWLAND PIERCE, F.R.I.B.A., Dist.T.P.

THE problems of traffic congestion in larger urban centres are now so acute and so much on the increase that, after housing, they may well become a first priority in the public mind. Taken in combination with an outdated system of national main and trunk roads, the cost to the nation in wasted time, fuel and reduced production, to say nothing of life and limb, is already a figure of colossal

size. If the existing knotted tangle is even partially to be unravelled, the cost of so doing must be met, whatever the amount, in order to stop the present annual waste and to avoid passing on the incubus to the future with consequent effects on whatever prosperity, slumps or crises the future may have in store.

Admittedly, the problem of London traffic is greater than most other capital centres, but it must be solved if that centre is to survive as a commercial and social unit. The negative solution is to prohibit all unessential traffic from the centre and make public transport responsible for all passenger and most goods traffic, with possibly the stoppage of all through traffic and the limitation of certain traffic to particular times and directions. If such drastic "precincting," of several miles in diameter, is not to be forced upon us it is necessary to examine other methods.

Attempts are being made to insist that all new buildings shall provide space for car-parking and picking-up and setting-down within their own curtilages. Sometimes this can be done, but it is obviously impossible to provide that new buildings should absorb all their own traffic; in any event the method relies on a very long-term policy and on the eventual rebuilding of the entire urban centre. Nor is it possible to insist that all existing buildings should be altered to provide internal handling of traffic. The future may see the ground levels of new buildings mainly given over to traffic circulation of all kinds, with the main (erstwhile) ground floor pushed up to the first floor level with stairs, escalators and lifts from the streets; shop windows and showcase display only would then remain at ground level and the serving spaces of shops and stores and the entrances to offices be at the first floor and higher levels. Shoppers could certainly then park their cars near the centres of blocks and not encumber the surrounding streets with the present sort of static congestion.

Such suggestions are made on the simple premise that vehicular traffic is best, as a general rule, kept on the ground level. It could, of course, be elevated above or sunk into the ground, but to do so would involve vast expense and gain little except speed at the expense of amenity for all types of user. Vehicular traffic is the heaviest part of street use; it is obviously easier to send pedestrians up or down from ground level.

The present state is that there is not enough room at ground level to use traffic ways for their legitimate purpose—movement. Parked or stopping traffic is the main congesting element; cross streets and pedestrian crossings and too many minor streets entering main streets, are some of the secondary slowers-down of efficient movement. To allow street parking, whether by meters or otherwise, in any position that is not a traffic backwater or a cul-de-sac is, under present conditions, a denial of the fundamental axiom that a street is provided for free movement of vehicles and persons and should be maintained as such. The situation may be eased when buildings absorb some

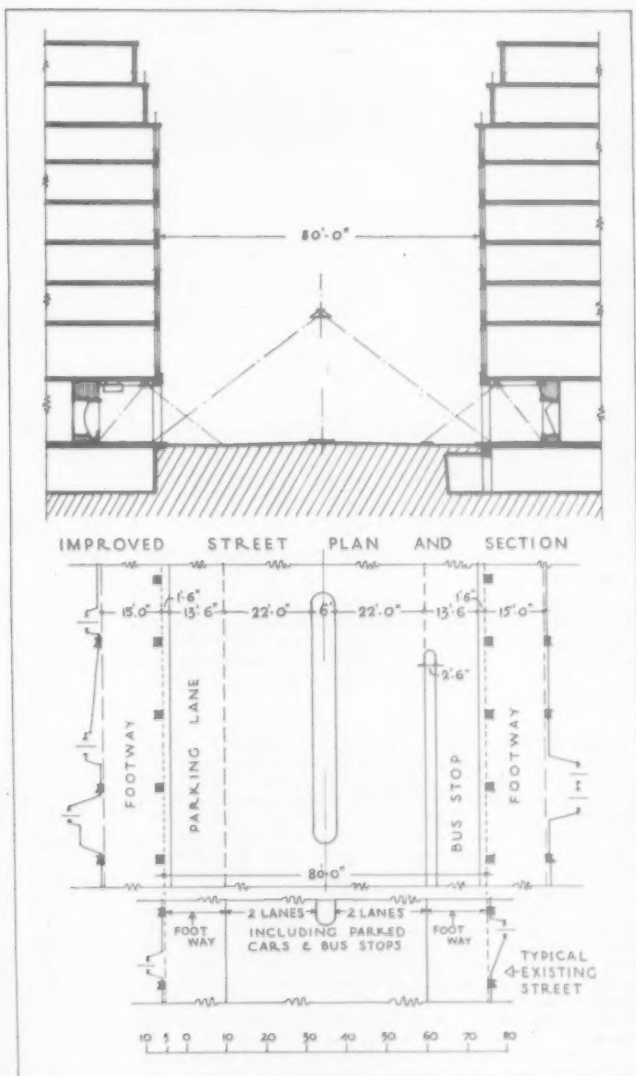


FIG. 1. GENERAL DIAGRAM OF AN "ARCADED STREET". The spacing of the ground floor piers (probably of varying construction but with similar finishes) would have dimensions which might well vary from about 15 feet to 25 feet centre to centre. The height of the "arcade" could generally be standardized.

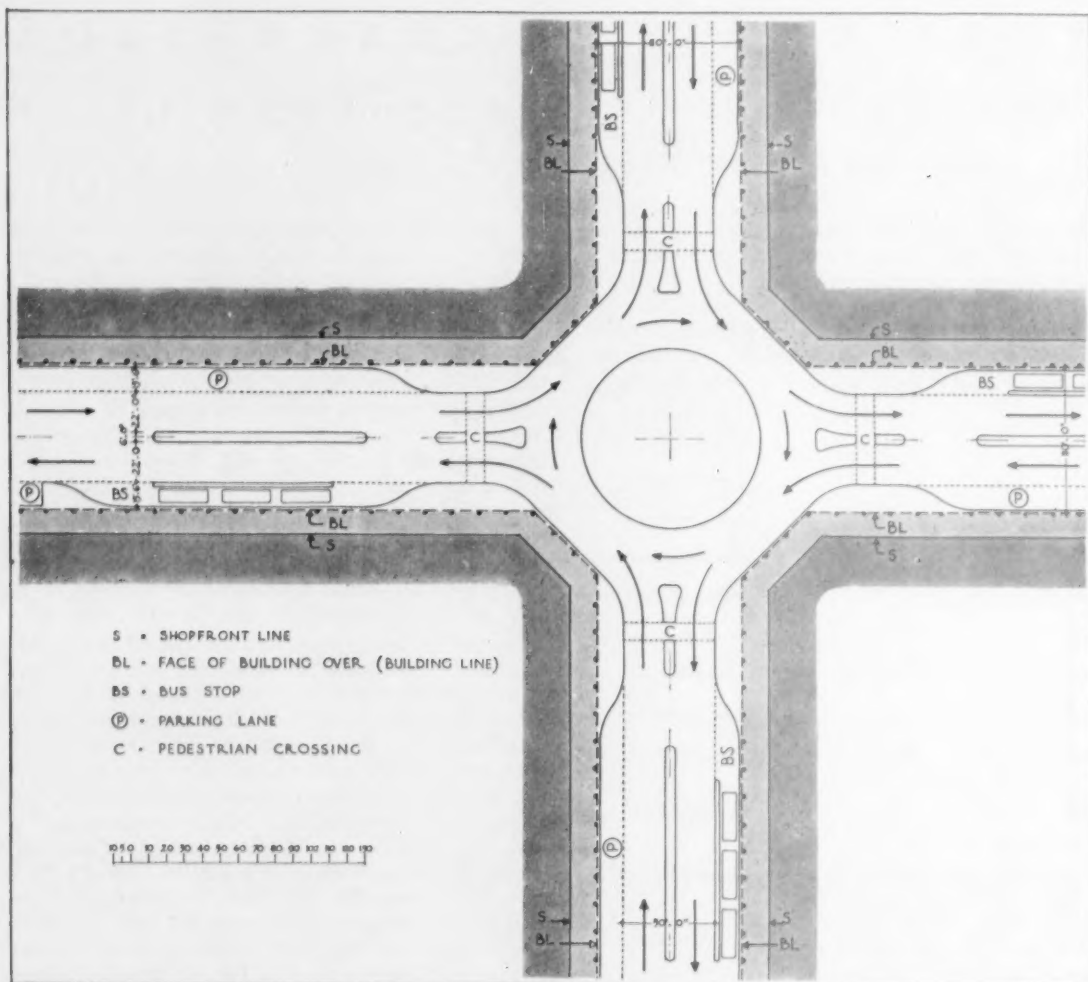


FIG. 2. FOUR-WAY JUNCTION USING A ROUNDABOUT (for speeds up to about 20 M.P.H.).

This is a diagrammatic demonstration that the setting-back of ground floor frontages enables the use of roundabouts where such would be impractical under present normal conditions. (E.g., Oxford Circus). Note the slowing down of traffic, but not stoppage, in either direction, except for pedestrian crossings; the latter have only the same widths of traffic road to traverse as at present. If Oxford Street, etc., be taken as a sample for treatment, there might be only three major junctions between Marble Arch and Holborn Circus (Oxford Circus, Tottenham Court Road and Kingsway) with major tee junctions (Bond Street, Shaftesbury Avenue (a difficult one) and Grays Inn Road). A few light-controlled junctions on this stretch would remain and many minor road entries could be stopped-off altogether.

of their own traffic; certain sunk car-parks may be possible if these do not destroy open space amenities; multi-storeyed car parks may prove partially useful, if space on the ground can be found for them; some could be built over railway cuttings and other, at present wasted, areas, though these would not necessarily always be in the right places to cope with the relief of traffic congestion. To widen streets by setting back entire frontages is, without exception, the most costly method of effecting town planning improvements; in addition, it is one that can only be finally effective after much time lag (e.g., Piccadilly, 50 years).

These are some of the considerations which have led to attempts to find other means of dealing with traffic congestion, which can be started now as far as existing buildings are concerned; applied to new buildings and which can be adopted progressively as an essential factor of general plans for urban street improvements.

FIG. 3. FOUR-WAY JUNCTION WITH FLYOVER ROAD.

Any attempt to effect speeding-up of through traffic by use of a flyover bridge would be impossible at present normal-sized junctions, but with set-back ground floor frontages sufficient room can be found. The flyover would be arranged in the direction of the greater traffic; the lesser traffic in the opposite direction is assumed to be continuous in transit at about 15 miles per hour. Only the right-hand turning traffic and the lighter density slow through-traffic uses the roundabout. There is greater segregation of traffic than is possible with a simple roundabout (Fig. 2). Pedestrians are better controlled and either have to use subway crossings (to pass higher speed traffic) or the single below bridge crossings (on ground level across slower roundabout and side-turning lanes only). Bus traffic can use the flyover or the slower roundabout lanes according to the positions of bus stops for particular routes. It should be noted that the central roundabout area is slightly sunk to reduce the height of the flyover and the lengths of the approach ramps (grade, 1:20). To half sink the roundabout and half raise the flyover would be the ideal, but this would deny the use of the actual junction to right-turning traffic and necessitate back streets (away from the junction) being used for this purpose; it is thought that such planning, though possible in some instances, would in most result in traffic confusion rather than speed. The flyover has two major disadvantages which may be considered to be outweighed by the advantages; masking of the buildings and particularly shopfronts for some distance and the increase of noise (vehicles on ramps, gear changing, etc.).

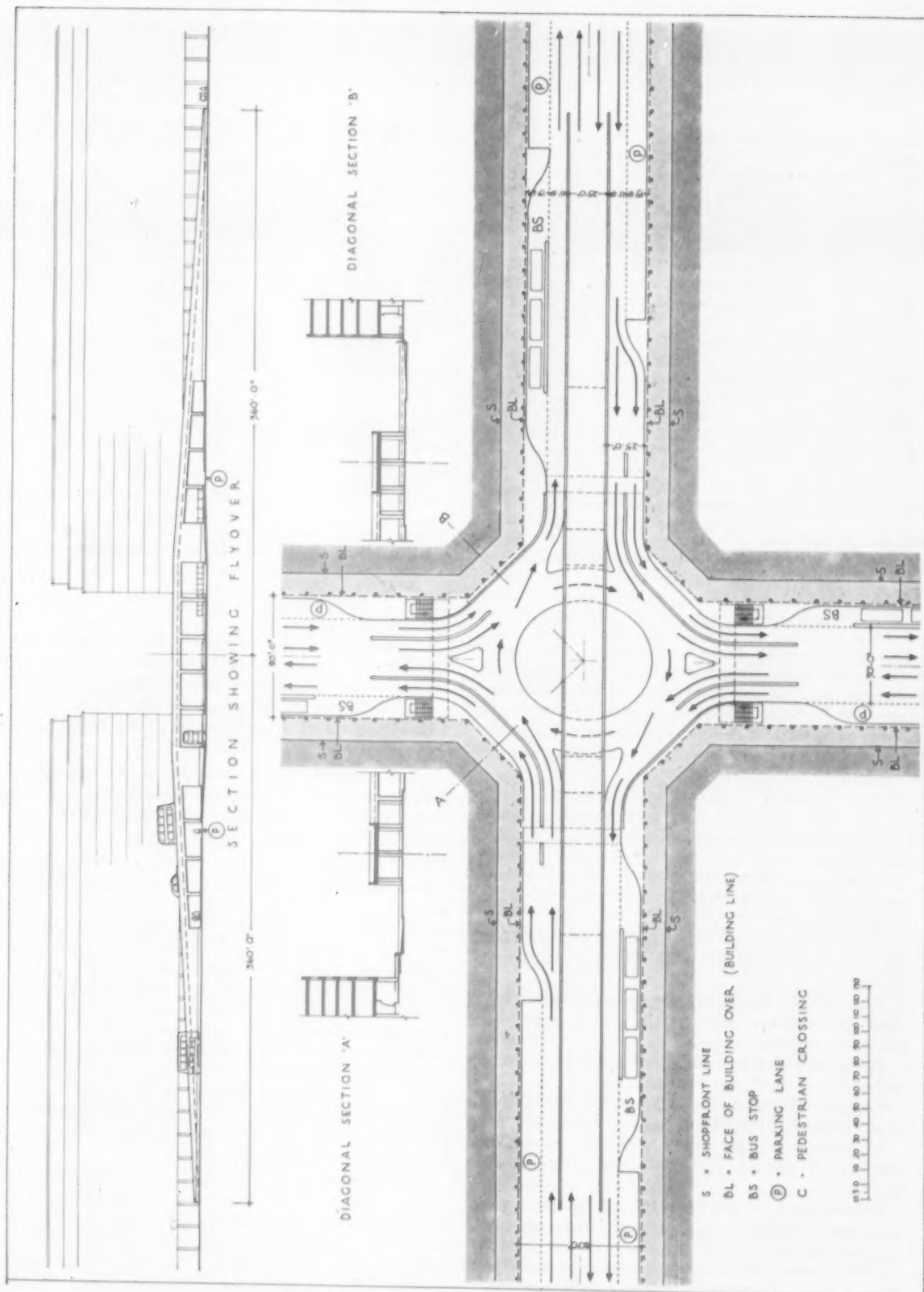


FIG. 3. FOUR-WAY JUNCTION WITH FLYOVER ROAD

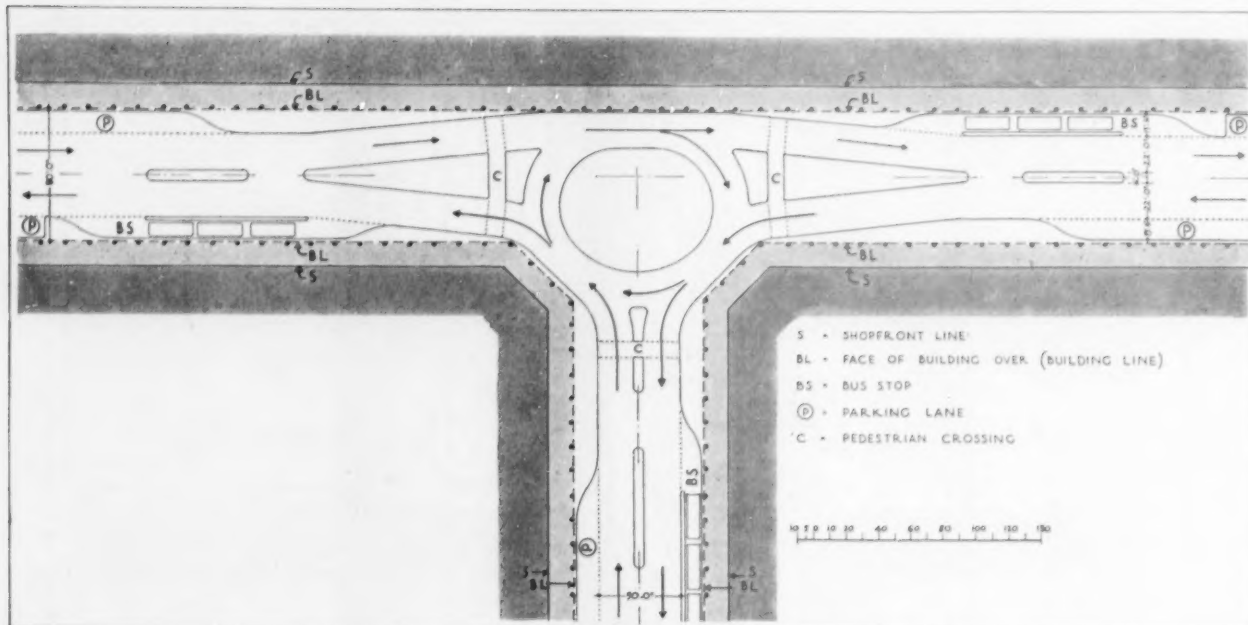


FIG. 4. TEE JUNCTION.

This diagram shows the type of improvement that could be effected in the traffic movements of such a junction if set-back ground floor frontages were adopted.

The accompanying diagrams summarize some suggestions to these ends. They should be taken as typical only and, with the necessary adjustments of dimensions and other local conditions, could be applied to many main through traffic roads of the centre of London. The reader is referred to the captions related to the diagrams for more detailed considerations.

It may be useful to summarize here a number of advantages and disadvantages of the general proposals for setting back ground floor frontages for the purposes of street widening:

Advantages: Street widening is effected without setting back general building lines, with consequent reduction in costs.

Extra traffic lanes so provided allow segregation of all temporary parking and stopping places for vehicles of all kinds.

Two (at least) continuous moving traffic lanes in both directions without interruption of movement by stationary vehicles.

Better control of bus stops and protection for users of buses.

Covered side-walks with all-weather protection; few, if any, sunblinds needed.

Uniform street lighting by means of centre-island standards throughout, with masked side-walk illumination.

Disadvantages: Curtailment of ground floor shop areas and necessity for compensation; but on one level only (see above).

Fewer pedestrian crossings on account of faster moving traffic (though in high density traffic conditions such crossings should be under or over ground).

Increased need for artificial lighting of shopfronts and display areas. Although this is an addition to the running cost of individual services, many shopkeepers might welcome the innovation, in view of the modern increasing use of artificial window illumination, even in daytime.

If the principles here postulated could be planned for and the appropriate supporting legislation or statutory powers under existing law be inaugurated, there is no reason why many improvements could not be effected within a few years.

Architecturally there is little against the appearance of an arcaded street and there are many historical and modern examples of such treatments. That the necessary adjustments to existing buildings might have to be somewhat irregular and disjointed is obvious, but not more so than the wild inconformities of existing shopping streets; the advantages gained would probably render acceptance of these irregularities easier. With new building replacements the street design as a whole could be gradually tidied up, but that is a long-term policy outside the present scope. It is interesting, however, to note that an hotel building in Bond Street, now under construction, has been made to conform to a set-back system similar to that here suggested for wider use.

To accomplish any relief to the present congestion there must be full co-operation between all interests coupled with technical and administrative co-ordination at all points and levels. Otherwise the stranglehold of traffic chaos in urban centres can easily, within a few years, stop economic movement for all shopping, commercial and municipal service users.

THE NEW PLANNING BILL

MR. HAROLD MACMILLAN has presented in the House of Commons the Town and Country Planning Bill. Before briefly considering the provisions of this important Bill, it may be useful to recapitulate events since 1947. The new provisions are so closely linked to the old system that they cannot be properly understood unless the latter is borne in mind. The 1947 Act, it will be remembered, attempted to solve the vexed problem of compensation and betterment. The method it adopted was in outline simple, in operation complex. Development rights in all land were taken over by the State, and whenever development was undertaken with some special exceptions, the developer had to pay a development charge to the State. The latter was represented by the Central Land Board. To offset this removal of development rights, these late owners were to be compensated for their losses. A fund of £300 million was to be established. All who considered they had lost some development value in their land were to claim on this fund. Finally, payment was to be made to the claimants under a scheme to be worked out once all claims were submitted. Claims made under this scheme are all-important under the proposed new arrangements.

The system established in 1947 was never popular, probably because it was never widely understood. It was intended that it should cause, among other things, land to change hands at existing use value, which, in fact, rarely occurred. As a result of much protest, thought was given to methods of altering the system. It is now an open secret that well before the present Government took office, consideration had been given in official circles to alternative proposals. The first practical step was the publication in November, 1952, of the White Paper "Amendment of Financial Provisions of the Town and Country Planning Acts, 1947 (CMO.8699)." This document set out in general terms a new system, but one which was closely dependent on some features of the old. The first step to implement these proposals was taken with the passage of the Town and Country Planning Act, 1953. That Act abolished development charges and suspended payment of the £300 million fund. The present Bill is the second and final stage in the substitution of the new system for the old.

The new Bill seeks, broadly speaking, to do two things. First, it provides for payment to certain of those who have suffered losses in the past, brought about by the operation of the 1947 Act. Secondly, it provides for the payment of compensation in certain cases when, in the future, planning permission is refused or granted subject to onerous conditions, or where permission is revoked or modified, or where land is compulsorily acquired. The key to both these objects is the existence of a claim on the £300 million fund which has been admitted by the Central Land Board and which relates to all or part of the land in question. This is what the Bill refers to as an "established claim." The interest of most readers is likely to be concerned with the provisions the Bill makes for future cases, and it is therefore proposed to deal here only with those.

The Bill provides that in future if a prospective developer is refused planning permission or it is granted subject to unwelcome conditions, he may, subject to certain important provisions and exceptions, obtain compensation (Clause 17). In order to qualify at all, it is first necessary that all or part of the land concerned

should have what this Bill calls "an unexpended balance of established development value." This needs explanation. If a claim on the £300 million was made and admitted by the Central Land Board, there is an "established claim." If such an established claim is not affected by payments to be made in respect of past events or transactions, the remaining amount of such a claim becomes, by operation of the Bill, attached to the land to which it relates. The land to which the claim is so attached is now described as having "an unexpended balance of established development value." The amount of this claim represents the upper limit of compensation payable under the Bill. Whatever value the land concerned may attain in future, compensation in respect of that land will be limited by the figure of the "unexpended balance" plus a small supplement. Moreover, provisions are made for this limit of the unexpended balance to be reduced, principally where development is undertaken after the commencement of the Act. A detailed procedure is laid down in Clauses 21 and 22 to arrange for the apportionment of compensation where either the parties concerned have different interests in the land or where the land forms only part of the plot affected by the decision in question.

While compensation may be obtained if there is an "unexpended balance" in respect of the land concerned, it may, nevertheless, be excluded on other grounds. The clauses which provide for those cases where compensation, otherwise payable, is to be excluded, are among the most important in the Bill. These exclusions are set out in Clauses 23 and 24. Clause 23 provides that compensation is not payable if the refusal is for any development which "does not consist in the carrying out of building, engineering, mining or other operations," or "the formation or laying out of any means of access to a highway." The important omission here is of change of use. Compensation will also be excluded where the refusal is stated to be wholly or partly due to either or both of two reasons. These are first, that the development would be premature having regard to the staging of development set out in an approved development plan, or secondly, would be premature having regard to any existing deficiency in water or sewerage services, and the period that state of affairs is likely to subsist. Compensation is not to be excluded on these latter two grounds where the refusal is given on an application made more than ten years after a previous refusal on these same grounds, or for reasons which included these grounds. Payment is also excluded where the refusal is stated to be because the land is liable to flooding or subsidence.

Important exceptions are also made by Clause 23 regarding the imposition of conditions on the grant of permission. Compensation is not to be paid if the condition relates to:

- (a) the number or disposition of buildings on any land;
- (b) the dimensions, design, structure or external appearance of any building, or the materials to be used in its construction;
- (c) the manner in which any land is to be laid out, including the provision of facilities for the parking, loading, unloading, or fuelling of vehicles on the land;
- (d) the use of any buildings or other land; or
- (e) the location or design of any means of access to a

highway, or the materials to be used in the construction thereof;

(f) or in respect of any condition, subject to which permission is granted for the winning and working of minerals.

Lastly, payment of compensation is to be excluded by Clause 24, where permission is granted either by the local authority or the Minister, for development which is comparable to that for which the permission was sought.

The remaining clauses of Part II provide a detailed basis upon which the depreciation involved in refusal of the imposition of conditions is to be assessed. Provision is also made for such payments to be registered if over £20, and to enable them to be recovered in the event of subsequent development. Perhaps most important of all is the provision that the Minister may review any decision which gives rise to a claim for compensation, subject, that is, to the right reserved by Clause 30 of the local planning authority to make representations to him on the subject.

The very wide nature of the exceptions to these compensation provisions should mean that local planning authorities will be very free to exercise their planning powers without fear of excessive claims for compensation. Indeed, the exceptions are so wide that a careful local authority may well never forward a claim for compensation to the Minister. Much of the detail about how applications will be made remains to be settled by issue of regulations. Generally, however, it is provided by Clause 28, that the claim must be made within six months of the decision to which it relates. Provision is to be made by regulations for reference to the Lands Tribunal of disputes on the Minister's findings, and claim for compensation.

Part IV also deals with the question of planning permission. These clauses make compensation payable *in full* where a planning permission is revoked or modified. This is irrespective of the existence of an unexpended balance. If, however, such an unexpended balance is available, the local authority, who in this instance pays the compensation, may recover a sum from the Minister equal to what would have been payable had the decision on the original

application been that now made. Once more arrangements are made for the recovery of payments to the injured developer on subsequent development.

Part III is the only other part which, in the main, deals with future arrangements. This part lays down what compensation is to be paid when a public authority compulsorily acquires land. Once again the "unexpended balance" is important. Whether there is such a balance or not, the existing use value at the time of purchase will be paid. If there is an unexpended balance also which relates to the land, then an amount equal to that sum, plus a supplement of an amount equal to one-seventh of that balance, will also be paid. Clause 36 provides for the payment of additional compensation where money has been spent since July 1, 1948, on works which do not correspondingly increase the existing use value of the land so acquired. A novel provision is made by Clause 37, which enables a person purchasing land to make sure that, should the land be compulsorily purchased within three years, the compensation he will be paid will include the value attributable to any planning permission relating to the land when he bought it. This last clause is one which should be carefully studied by anyone who buys land henceforth.

Then there are some of the more important provisions of the Bill which relate to future transactions. There is, of course, much more in the Bill, which runs to 73 sections and 10 schedules. Its passage through Parliament will be watched with interest by all who are concerned with land in any way. Those clauses which deal with certain past transactions will attract a lot, if not most, of the attention of the Committees who handle the Bill. But in the long run, the success or failure of this measure will depend on the effect it has upon land planning in the future. Parts II, III and IV are those which will mainly decide this. It is too early yet to say whether they will achieve their object. One thing, however, seems likely, that the clauses which exclude the payment of compensation seem to have been drawn widely enough to enable local planning authorities to make fairly free use of their powers without incurring large bills which the Exchequer might be unwilling to face.

TRADE PUBLICATIONS RECEIVED

- **Fural.** Issued by S. W. Runald & Co. Ltd., Bank Chambers, 329, High Holborn, London, W.C.1. Telephone Holborn 2237 and 1031.

This new roofing material consists of an aluminium sheet available in 19ft long rolls 27in wide in the form of a corrugated unit which is clipped on to the dovetailed tongues which are fixed to roof purlins or battens. The alloy roofing is laid across the slope of the roof with the ridge running downwards. It is a light form of decking which can normally be laid on light timber battens or may be used with steel trusses and suitable purlins over concrete roofs, using counterbanding. The suppliers of this new form of roofing claim that it is quick in erection, requires no special tools or jigs, the site work being reduced to a minimum. It is about 20 times lighter than tiles and 10 times lighter than corrugated asbestos. It can be laid to a pitch as low as 6 deg. and can also be used as vertical wall cladding. No expansion joints are required and it provides good thermal insulation, condensation being eliminated by ventilation under the sheeting. Fural is not liable to damage during rain and can be repeatedly dismantled and reused. It consists of a highly corrosion-resistant aluminium manganese alloy and requires no protective coating of maintenance. The brochure contains a considerable amount of technical information, and includes a number of photographs of buildings, mainly in Switzerland, where the roofing has been used widely. One photograph of particular interest shows Le Corbusier's own house where he used it as a wall

cladding. Over 600,000 square yards of Fural have been laid on the continent in the last two years. No information is given regarding the cost of the roofing but readers will remember that it was exhibited at the Building Exhibition in 1953, where it caused considerable interest and has since that time been given considerable publicity in the technical press.

- **Sliding Door Gear.** Issued by P. C. Henderson Ltd., Tangent Works, Barking, Essex. Rippleway 3406.

These two new booklets illustrate the newer ranges of sliding door gear made by Hendersons, including the cabinet sliding rollers for small cupboards, mansion doors rollers for domestic door units, and the phantom door hangers for larger doors. The booklets give all the necessary dimensional and technical information required by architects using sliding door gear of this type, together with photographs of actual installation.

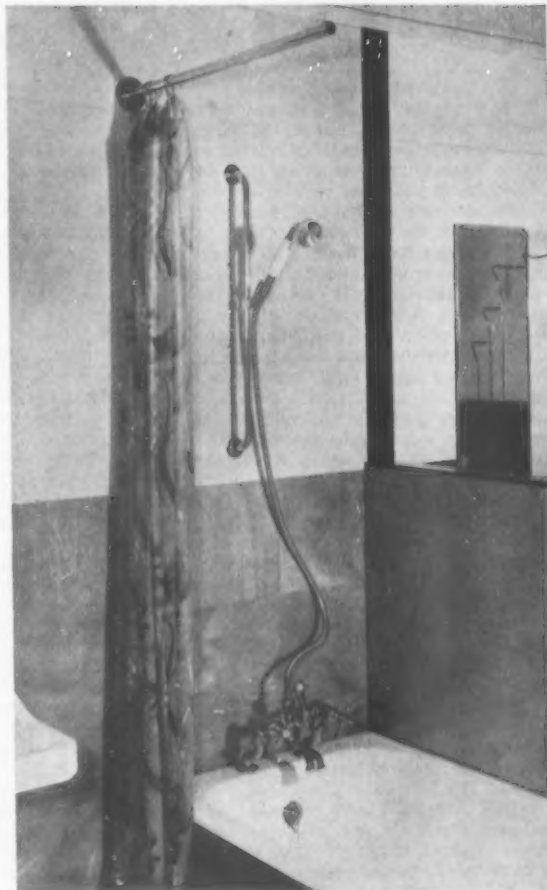
- **Controlled electric clock system.** Issued by Gets, 47, Victoria Street, London, S.W.1. Abbey 6888.

This booklet includes details of electric clock systems including master clock systems, with details of the information required concerning the planning of the installation. Details are also given of sound signal instruments, watchmen's clocks, programme instruments, time records, suspension clocks and other clock equipment. It is encouraging to see that the design of the wall clocks has improved very greatly of recent years, and many of the designs illustrated are ones which can be used in the best modern buildings without any fear of them seeming out of place.

ALSO RECEIVED

Free unless otherwise stated.

- **Estate Duty and Family Business.** Issued by the Federation of British Industries, 21 Tothill St., London, S.W.1. Whitehall 6711.
- **Uniforms and Industrial Clothing Catalogue.** Issued by United Trade Press Ltd., Boswell House, 9, Gough Square, Fleet Street, London, E.C.4. Price 10/-.
- **Instantor Fittings for Alkanthene Tube.** Issued by Fyffe & Co. Ltd., Carolina Port, Dundee.
- **Scope Magazine for Industry.** Published by A. E. L. Mash & Associates, Avenue House, 25, Shaftesbury Avenue, London, W.1. Gerrard 3362. Price 2/6.
- **Casco-Resin 427.** Issued by Leicester, Lovell & Co. Ltd., North Baddesley, Southampton.
- **Acrow. 17 Years of Progress.** Issued by Acrow Engineers Ltd., South Wharf, Paddington, London, W.2.
- **Fyffe's Four Leading Fittings for Light Gauge Copper Tubes.** Issued by Imperial Chemical Industries Ltd., Imperial Chemical House, Millbank, London, S.W.1. Victoria 4444.
- **A Digest of Facts about the Manufacturers Life's New Eleven Storey Addition.** Published by The Manufacturers Life Insurance Company, Bloor Street East, Toronto.
- **Hammill, Bricks the Foundation of Good Building.** Published by The Hammill Brick Co. Ltd., Eastry, Sandwich, Kent. Telephone Eastry 231/2.
- **From cellar to attic the fight is on with Rentokil.** Issued by Rentokil Ltd., Fetcham, Leatherhead, Surrey. Telephone Leatherhead 4021-2.
- **Control and Measurement—Energy Regulators—Vacuum Pumping and Gauging Equipment.** Issued by Sunvic Controls Ltd., 10, Essex Street, Strand, London, W.C.2. Telephone Temple Bar 7064-8.
- **Handy-Andy Warm Air Towels.** Issued by Quiz Electric Ltd., 160, High Street, Teddington, Middlesex. Telephone Kingston 7969.
- **Asbestolux Leaflets.** Issued by Cape Asbestos Co., 114-116, Park Street, London, W.1. Telephone Grosvenor 6022.
- **Spheroidal Graphite Cast Iron.** Published by The Mond Nickel Company Ltd., Sunderland House, Curzon Street, London, W.1. Telephone Grosvenor 4131.
- **Vickers Overseas News.** Published by Vickers Limited, Vickers House, Broadway, Westminster, London, S.W.1.
- **Aluminium News.** Published by Aluminium Union Limited, The Adelphi, Strand, London, W.C.2.
- **Arclight Review, November and December 1953 issues.** Published by E. N. Mason & Sons Ltd., Arclight Works, Colchester. Telephone Colchester 2266.
- **Enfield Review, November 1953.** Published by Enfield Cables Ltd., Brimsdown, Middlesex.
- **Newsletter, December 1953, Vol. 5, No. 12.** Published by David Brown Organisation.
- **The Iron and Steel Trades in 1953—Special Review.** Published by William Jacks & Co. Ltd., Winchester House, Old Broad Street, London, W.C.2. Price 2/6.
- **Management View—November-December, 1953.** Published by Remington Rank Ltd., Commonwealth House, 1-19, New Oxford Street, London, W.C.1.
- **Rayon Review.** Published by The British Rayon and Synthetic Fibres Federation, 130, Piccadilly, London, W.1. Telephone Regent 7446.
- **The C.A.C. Magazine, Vol. 3, No. 1. Winter 1954.** Published by the Cape Asbestos Co. Ltd., 114-116, Park Street, London, W.1. Telephone Grosvenor 6022.
- **1953 Illustrated.** Published by Dorman, Long & Co. Ltd., G.P.O. Box No. 1, Zetland Road, Middlesbrough.
- **The Royal Doulton Magazine. No. 5, December 1953.** Published by Doulton & Co. Ltd., Doulton House, Albert Embankment, Lambeth, London, S.E.1.
- **Acrow Review Sept. 21-Oct. 2. December 1953. Vol. II, No. 9.** Published by Acrow (Engineers) Ltd., London. South Wharf, Paddington, W.2.
- **Ad Rem. The House Magazine of the Butterley Co. Ltd.,** Published by The Butterley Co. Ltd., Butterley, Derby.
- **The Stramit Advertiser.** Published by Stramit Board Ltd., Cowley Peachey, Uxbridge, Middlesex.
- **Willerby Way, No. 12 November, 1953.** Published by Willerby & Co. Ltd., 110-113, Tottenham Court Road, London, W.1. Telephone Euston 2622.



A new overhead shower fitment with adjustable shower 'and wall rail. On view at W. N. Froy & Sons, Hammersmith. Price complete with taps—£11 4s.

- **B.C.U.R.A. Quarterly Gazettes. Nos. 19 and 20.** Published by the British Coal Utilisation Research Association, Randalls Road, Leatherhead, Surrey.
- **The Royal Society of Arts Industrial Art Bursaries Competitions, 1952 report. 1953 Particulars.** Published by the R.S.A. John Adam Street, Adelphi, W.C.2.
- **Bygglitteratur Building Abstract Service.** Distributors: L. M. Gieritz, Hagelbygard, Tumba, Sweden.
- **Die Neue Marienbrücke in Wien.** Herausgegeben vom Statbauamt der Stadt Wien in der Buchreihe De Aufbau Heft 19—Verlags-Nr. 1940—2000, Oktober 1953.
- **Leopoldauer Sammelkanal Pumpwerk Schirlinggrund.** Herausgegeben vom Statbauamt der Stadt Wien in der Buchreihe De Aufbau Heft 19—Verlags-Nr. 1940—2000, Oktober 1953.
- **The British Journal of Industrial Safety. No. 25. Autumn 1953.** Published by the Royal Society for the Prevention of Accidents, 52, Grosvenor Gardens, London, S.W.1.
- **Exports in a Buyer's Market. Report on the F.B.I. Export Sales Conference, Buxton, 30 October to 1 November, 1953.** Published by Federation of British Industries, 21, Tothill St., London, S.W.1.
- **The "Target Estimate" Contract with special reference to the Wemmershoek Dam.** A Brief Paper presented to The Jubilee Convention of the South African Institution of Civil Engineers held in Johannesburg, South Africa, by S. S. Morris. City Engineer Cape Town.
- **The Development of the Cape Town Foreshore.** A Paper presented to the 32nd Annual Conference held in Bulawayo, Southern Rhodesia, by S. S. Morris, City Engineer, Cape Town.

PAINT

SOME time ago I wrote on this subject suggesting that it was time that the paint makers sold us, the users, products with performances related to agreed standard tests in order that we should know just what we are buying. At the moment we have no means of evaluation of the products offered to us except by the long process of experience gained from previous jobs; this might be satisfactory if we could be assured that next time we specify a particular variety of a particular brand it is of exactly the same composition as that we had used some three years earlier; to give such an assurance means either giving us the composition on the tin or figures related to standard tests, which no firm seems willing to state at present.

It has been said that the preparation of standard tests would be of no value as the users cannot carry them out. I disagree entirely with this view as, like others in our industry, I buy other materials on the basis of results given by manufacturers in relation to standard tests and, if I feel inclined, as often I do, I can have a sample taken from what I purchase and have it tested by an independent test house. In many fields other than paint, the makers are willing to provide certificates of compliance with established tests such as those of B.S.I.

It has been said, until recently, that no tests for paint are available and efforts by B.S.I. to prepare tests appear to have been, so far, fairly abortive, which I imagine is due to opposition from the manufacturing interests. I have often wondered why there is this opposition. I have had to come to the conclusion that either many of the firms who spend vast sums of money impressing us with the perfections of their products are afraid to have them tested on an agreed scientific basis with the products of similar firms, or alternatively the many small firms, through their numerical superiority in the trade associations, fear competition from those better able to afford test equipment and the skilled staff to operate it.

I have noted with great interest that over the last year or two many paint manufacturers have made considerable displays in their advertising of the test apparatus they use to assure themselves that the products they offer to us are satisfactory, but only on rare occasions are test figures based on using the apparatus given to the users in the advertising. If, as seems apparent from this advertising, many firms are using similar test apparatus I see no reason why it should not be standardized and test results given to us. Also, if we could achieve standard methods of test it might not be necessary to take the further step of setting minimum specifications for the most used types of paint although these would be of great assistance to the users.

As the cost of applying paint is so

great compared with the cost of the material used it is well worth while to use only materials of really good quality, but one cannot tell whether the higher-priced products offered to us are necessarily any better than some of the less costly ones if there are no agreed methods of assessment, with related results, which makers can quote to us.

I am now quite sure that standard methods of testing paint are achievable as I recently acquired a copy of a Defence Specification, DEF/1053 "Standard Methods of Testing Paint, Varnish, Lacquer and Related Products." Incidentally, and perhaps to soothe the paint industry, on the cover is printed a statement that it is only to be quoted in government specifications. I have little doubt, however, that with suitable modifications this document will provide many large-scale purchasers, such as local authorities, with a very adequate basis on which to write their own purchasing specifications. Before long if, as I imagine they will, a number of the larger users write their own specifications with their own methods of test the paint industry will have a miserable time testing the same products to a variety of specifications and test methods all somewhat similar but just sufficiently different to be a nuisance; it would, therefore, seem wise for the applicable Ministry of Defence specifications to be used as a basis for B.S. methods of test and specifications as a means of unifying the demands made on the paint makers. It may be that some manufacturers will say to themselves that they will refuse orders based on specifications of this nature but I am sure, in such a large industry, the users will be able to find firms willing to tender and supply to specifications based on test methods. I have, in fact, heard a rumour that one very large public authority is already having no difficulty in purchasing its paint supplies on such a basis.

This DEF/1053 specification is most interesting. It includes, so far, twenty-seven standard methods of test covering a very wide range of properties of coating materials. It seems that certain of the test methods are particularly applicable to certain "services" applications but the great majority of them have equal application to normal civilian uses of paints and like materials.

I was especially interested in the two "Notes for Guidance" which serve as an introduction to the twenty-seven test methods as they set out very precisely, first, how to carry out properly the sampling of a batch and, secondly, how to apply paint when preparing samples for laboratory tests.

These notes are very clearly set out and should be capable of being followed by test operators who have only a very limited knowledge of the procedure. The sampling note deals with the separate procedures needed for each of the five main groups of products, namely, ready-mixed paints; varnishes, drying oils and liquid driers; liquids

such as solvents; pastes, such as distempers; dry powders, such as pigments. The notes on paint application deal with brushing, spraying, and dipping.

The first standard method covers the procedures for preliminary examination and preparation of samples for testing and the second method covers the preparation of panels for test purposes. Both of these procedures are vital adjuncts to many of the test methods given subsequently.

The third test method covers the measurement of consistency by the flow-cup method. While this may not be a highly scientific procedure, it is a method widely used in the paint industry which gives very useful information. It is based on the use of B.S. 1733 "Flow cups and their method of use."

The fourth test method covers "soluble lead" content and the fifth covers flashpoint by the two most used methods, namely, with the Abel apparatus and Pensky-Martens apparatus, both of which are standard methods of the Institute of Petroleum. Determination of water is the sixth method and follows that given in B.S. 929 "Ready-mixed paints." B.S. 256 provides the basis for method 7 for Surface-drying time. Method 8 for Hard-drying time replaces the old procedure of twisting the thumb on a sample, which was by no means reproducible by different operators, by the introduction of what might be termed a mechanical thumb which it would appear likely to give reproducible results although the apparatus looks rather expensive to acquire. Method 9 for tack freedom depends on the application of gold leaf under a 800g. weight.

Method 10 covers two methods of the visual comparison of colour. Methods 11 and 12, which are badly needed tests for general use by paint purchasers, are for the measurement of gloss and opacity; both require some simple apparatus and photo-electric apparatus which, if generally adopted, should not be very costly.

Method 13 appears to be similar to the normal bend test but it has been given greater precision. Method 14 is for scratch resistance and involves a fully mechanized apparatus, which seems to involve a fairly high initial cost, but should, one would imagine, give reproducible results so long as the scratching needle is examined sufficiently frequently. Method 15 is a pressure test, Method 16 is a setting time test and Method 17 covers two types of test for resistance to impact of which the falling-weight test seems more suitable for normal paints than does the pendulum test.

Method 18 for alkali resistance of plaster primer would be very useful for general building needs. Methods 19 to 22 cover resistance to petrol, petrol/benzol mixtures, mineral oil and white spirit which seem to have limited interest to the normal building industry. Similarly, Methods 23 and 24, which cover resistance to salt-water and con-

[Continued on page 301]



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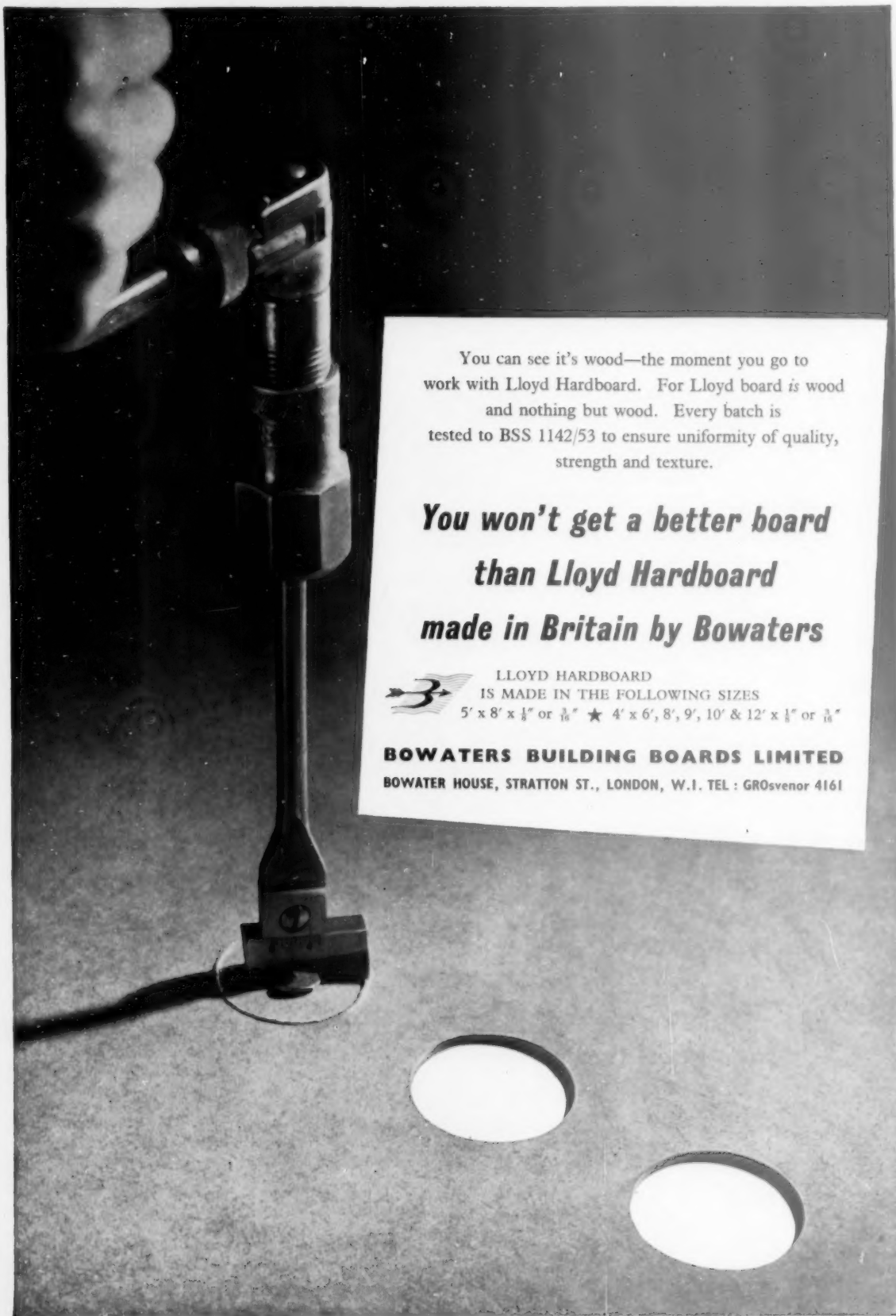
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Supplement to THE ARCHITECT and Building News, 11 March 1954

A & B N ARCHITECTS' DETAILS

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ARCHITECT & BUILDING NEWS DETAIL SHEETS

Edited by Edward D. Mills, F.R.I.B.A., F.R.S.A.

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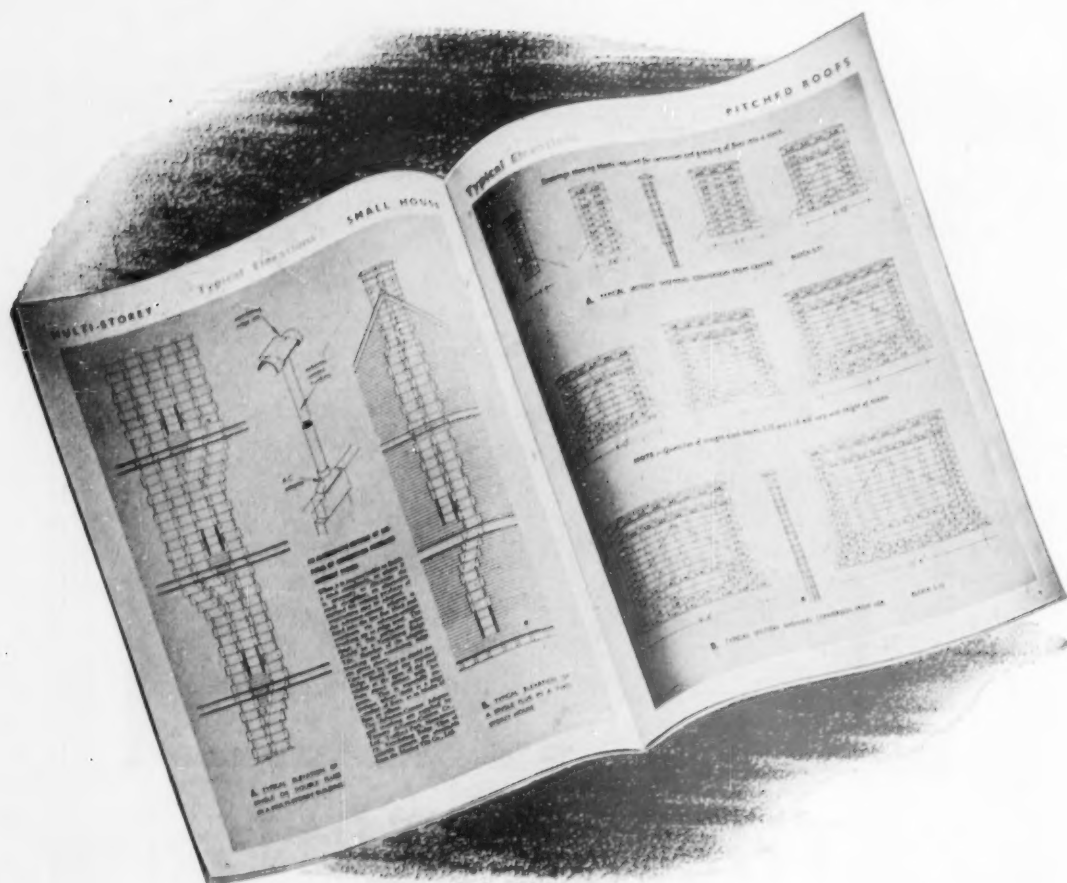
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rain salt sprays, seem to have only limited building uses.

Method 25 covers resistance to humidity under condensation conditions. Method 26 is the most generally accepted form of testing resistance to accelerated weathering, which many still believe to be a test of doubtful value but it is at least better than no test at all.

The last Method, No. 27, for resistance to heat, might have some building applications, as for example when paint is used on hot pipes.

I notice that, based on these Methods, there are now available a considerable number of Defence Specifications for the actual coating materials. I hope that the issue of these Test Methods and Specifications will be an indication to users that it is no longer impossible to give the building trade test methods, and specifications based on them, for the relatively few paint materials which we use in large quantities for the protection and decoration of our buildings.

DUTCH UNCLE

B.S.I. Takes Over Codes of Practice

New arrangements have recently been concluded for the preparation of Codes of Practice and will come into effect on April 1, 1954.

As a result of discussions between the Council for Codes of Practice for Buildings, the Ministry of Works, the professional Institutions concerned, and the British Standards Institution, it has been agreed that a Council for Codes of Practice should be established within the British Standards Institution, to be responsible for all work on Codes of Practice. Committees will be set up under the Council and initially these will cover civil engineering; building construction and engineering services; mechanical engineering; electrical engineering.

In the discussions which have led to the new agreement, special agreement has been laid on the guiding principle of the British Standards Institution of proceeding by general consent; this principle will apply to the work undertaken by the Council.

The Council will have within the British Standards Institution the status of a Divisional Council and in the preparation of new Codes of Practice will consult all the professional and other interests concerned with the projects in question.

The term "Codes of Practice" in the present context covers a wide variety of industrial and professional activities in building, public works and engineering. Essentially, Codes of Practice are concerned with setting out approved methods of installation, operation and maintenance of plant, machinery, equipment, etc., as opposed to manufacturing requirements relevant to processes which take place before equipment leaves the manufacturer.

Codes are thus distinct from—though very closely related to—the Standard specifications which form a large part of the work of the B.S.I.

Examples of Codes of Practice which have already been prepared are those for the use of structural steel in buildings and for other building processes; the methods of collection and disposal of surface and sub-soil water; installation of gas pipes, boilers, etc. etc.

The object of preparing such Codes is to try to ensure that experience and knowledge are made widely available, and that the best practices, whether long-established or involving new methods and materials, are generally adopted.

The work of preparing Codes of Practice involves the collaboration of many interests. A considerable proportion of the existing Codes has been prepared under the authority of the Council for Codes of Practice for Buildings, which was set up in 1942 by the Ministry of Works in response to representations from certain of the professional institutions. The main argument in favour of creating such a separate authority was that the professional institutions had a more direct and responsible interest in the preparation of Codes of Practice, where user experience was of major significance, than they had in the preparation of standard specifications for materials and components. In the past 12 years the Council for Codes of Practice for Buildings has prepared more than 80 Codes, while others affecting engineering techniques outside the scope of the Council itself have been produced independently by the relevant professional bodies.

Although the British Standards Institution has thus not been the responsible authority for the preparation of these Codes, it has always been one of the consultative groups concerned, and it has actually published the majority of the Codes. There has, however, been a considerable body of opinion that the development of Codes of Practice should be more closely related to the work of the B.S.I., not least because it is often difficult to lay down a precise dividing line between a Code which defines how a material should be used and a standard specification for the material itself. The need for integration of the two activities was also emphasized in the report of the Cunliffe Committee which investigated

the organization and constitution of the B.S.I. in 1950.

It is against this background that the importance of the agreement which has now been reached between the professional institutions, the Ministry of Works and the B.S.I. should be measured. There will in future be a single centre in which all Codes of Practice work will be co-ordinated.

Prestressed Concrete

"Prestressed Concrete Design and Construction," by F. Walley, M.Sc., A.M.I.C.E., of the Directorate-General of Works, Ministry of Works, now published by H.M. Stationery Office,* sets out in a simple manner the principles upon which the design and manufacture of prestressed concrete units are based. It describes methods for designing simply supported units employing both pre-tensioned and post-tensioned systems, and gives examples which use only a small number of easily understood symbols.

In addition to simple design, it considers ultimate design and discusses problems which arise when considering shear composite action, two-stage prestressing, circular tanks and continuous structures.

One section is devoted to materials and allowable stresses, another to fundamental principles underlying the losses of stress caused by creep, shrinkage and other factors.

Experimental work on the testing of beams is described, and current methods of prestressing are discussed in sufficient detail for the designer or user to learn how prestressing is carried out in practice and how it affects design.

Appendices are provided to enable designers to decide upon an approximate suitable section as quickly as possible, since it has been found that this is the most time-consuming part of prestressed concrete design work.

* "Prestressed Concrete Design and Construction," by F. Walley, M.Sc., A.M.I.C.E. Published for the Ministry of Works by H.M. Stationery Office, price 30s (postage 8s).



A new exhibition of furniture and interior fittings has been opened at Heal & Sons, Tottenham Court Road.

Illustrated are a dining-room table in Mahogany and Kevasinga veneer which seats ten comfortably when extended, and a sideboard. Both are designed by Christopher Heal. Total cost, with chairs, £287.



Frontage of the new Terminal, St. Enoch's Square

GLASGOW AIR TERMINAL FOR B.E.A.

ARCHITECTS :
SAM BUNTON
& ASSOCIATES

THE new terminal was opened on February 6.

The work of converting what was a store and workroom for hotel furnishings, into an air terminal was carried out with the absolute minimum of structural alteration. In planning, by accepting the existing shapes of rooms and halls, etc., all heavy strapping and supporting was avoided.

The lower walls are clad with plain or fluted hard-board, the upper walls with flameproof board, fixed to timber strapping, while the timber finishings in general are of walnut and sycamore.

The flooring is of linoleum tiles fixed with adhesive to a cement screed, while the toilets and kitchen have thermoplastic tiles also laid on cement. Precast floor units were used to span openings and provide new floors where necessary.

The ceilings which were mostly of glazed brick have been merely painted except in the foyer where an open timber ceiling has been installed with lighting above it, and in the waiting hall where the low ceiling made plastering essential.

Partitions generally are of timber framing while those in the toilets are of metal-faced plywood specially made and incorporating doors, etc., of the same material.

The terminal is heated and ventilated by a forced system which draws air from outside, passes it through filters, heats it by passing it through a steam heater battery supplied with steam from the adjacent hotel installation, and forces it through metal ducts to outlet grilles in the various areas. A steady circulation is maintained by small extract fans at appropriate points.

The lighting is a normal installation, fluorescent fittings having been used at various points for purposes of economic running and to spread light evenly. Concentrations of light have been effected in the working areas, while the waiting hall has indirect lighting. A battery system of stand-by emergency lighting is incorporated, which maintains lights at strategic points should the main system fail. The exit signs, etc., also have auxiliary lighting under this system.

An emergency exit is provided to the hotel service passage at the rear of the terminal, and a warning system is installed to alert both the terminal office and



the hotel office if the emergency doors should be opened. A hose reel capable of reaching every compartment is centrally placed and hand fire extinguishers complete the fire equipment.

The front of the building to St. Enoch's Square is of walnut and has a fluted asbestos fascia. The sign letters incorporate neon lighting and a white tube has been installed to light the whole front. Metal roller grilles are used to secure the front entrance when the terminal is closed. The special luggage entrance doors are of metal-faced plywood, similar to the toilet partitions.



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ADA.3

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Architects: Messrs. A. McInnes, Gardner & Partners Ltd., Glasgow. Shipbuilders: Messrs. John Brown, Clydebank.

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The Main Processing Area.



The Foyer. Passenger entrance on the right and exit on the left.

Normally this sort of terminal calls for a through and through plan having access from a traffic route at one end and egress to a traffic route at the other. This was of course impossible in this case and the very best that could be done, was to secure an emergency exit at the rear. It was considered that the central position of the site in the city more than counter-balanced all the planning difficulties.

The approach to the actual planning was thus influenced by the extremely awkward shape of the existing building and the need to avoid heavy structural alterations for reasons of economy. The waiting hall obviously required space while not so important as the working areas and for these reasons it was placed at the rear. This really determined the circulation and the rest fell into place naturally with the foyer acting as circulation crush space and selling zone between the waiting hall and the processing area.

The Joiners and Main Contractors were: Messrs. Wylie & Lochhead, Ltd., whose sub-contractors were:

Builderwork: Messrs. Peter Thaw & Sons.

Plumberwork: Messrs. Chalmers & McAlpine.

Plasterwork: Messrs. D. Leitch & Co., Ltd.

Terrazzo Work: Messrs. Toffolo Jackson & Co., Ltd.

Glazierwork: Messrs. James Thow, Ltd.

Flooring Work: Messrs. Limmer & Trinidad Lake Asphalt Co., Ltd.

Separate Contractors for specialist works were:

Electrical Work: Messrs. James Scott & Co., Ltd.

Heating and Ventilation Work: Messrs. John & William Kerr, Ltd.

Neon Sign Work: Messrs. Laird Neon Signs, Ltd.

Painterwork: Messrs. George Sellars & Sons, Ltd.

Main Suppliers were:

Ironmongery: Messrs. George Boyd & Co., Ltd.

Flush Doors: Messrs. Southern, Ltd.

Roller Grilles: Messrs. G. Brady & Co., Ltd.

Partitions: Messrs. Flexo-Plywood Industries, Ltd.

Sanitary Fittings: Messrs. Glen Paterson & Co., Ltd.

The Bar and Buffet in the Waiting Hall





MOSAICS

STRUCTURE ROOFING A10/8

Diffused natural lighting can be incorporated in any corrugated roof using this Glass Fibre Laminated Sheet known as Galt Glass. Distributed by Allan Blun Ltd., of 29 Craven Street, W.C.2, these rooflights are available from stock in 3ft to 8ft lengths, 2ft 6in wide with ten 3in corrugations. Other lengths and profiles made to order. Nominal weight is 4lb. sq ft and the sheets are also supplied in a range of translucent and opaque colours.



PLANT FACTORY EQUIPMENT E14/5

This electrically operated forklift truck is made by Conveyancer Fork Trucks Ltd., of Liverpool Road, Warrington, Lancs, and has a load capacity of 2,000lb at a 20in load centre. Mounted on three wheels for manoeuvrability, it has a 9ft lift and carries large capacity batteries for long working periods.



SERVICES WATER HEATING B6/18

A cut-away view of the Sunrod Minor Fuel economizer applied to a typical domestic boiler. The primary flow pipe is led into the centre of the flue pipe for approx. ten inches and then taken out again to resume its normal direction. The section in the flue is finned with metal studs and absorbs heat from the flue gases. Four sizes are available in the Minor range and three in a larger range for boilers up to 360,000 B.Th.U. Made by Sunrod Ltd., 1 and 2, Hen and Chickens Court, 184 Fleet Street, E.C.4, the economizers are claimed to save up to 25 per cent. in fuel.



FITTINGS WINDOWS C10/3

A new friction hinge, by Clement Brothers, Haslemere, Ltd., of Clembro Works, Weyhill, Haslemere, Surrey, which permits windows to be installed without a stay or bracket. The hinge is made of heavy gauge pressed steel with nut and bolt; the bolt is cadmium plated and the nut is self-locking with a B.S.F. thread to give fine adjustment. The nut and bolt are fitted with bonded asbestos friction discs or washers, which supply the resistance necessary for the positioning of the window.

INDUSTRIAL NOTES

The first two paragraphs are reprinted correctly from last week, when the first lines were transposed.

● The printed specification for EJMA Standard Wood Casement Windows is soon to be issued. Copies will be available for all members of the Association and will be circulated to local authorities and architects.

● It is announced that the Institution of Industrial Safety Officers has been formed. The Institution has a founder membership of 500 executive grade persons engaged in accident prevention in industry. For the past eight years activities similar to those of this new and separate body have been conducted as a Section of The Royal Society for the Prevention of Accidents.

Individuals interested in the prevention of industrial accidents are invited to address enquiries to the Institution's office at 52, Grosvenor Gardens, London, S.W.1.

● Trade buyers overseas have been exceptionally prompt in their response to invitations recently issued for the British Industries Fair in May. Three thousand buyers from 87 countries have already notified their intention to make the journey to Britain—a 20 per cent increase in early acceptances.

It is now expected that by the close of the 33rd Fair, on May 14, 125,000 overseas visitors will have sought British goods at B.I.F. since 1947; more than twice the total to visit all the Fairs held before the war. An average of well over a thousand new arrivals daily should be maintained at B.I.F. this year.

● On March 5, the Rt. Hon. The Earl of Home, Minister of State for Scotland performed the opening ceremony of the new rock wool factory at Stirling which provides a new industry for Britain in the production of a long fibre rock wool.

All the raw materials are available in large quantities in Scotland and have never hitherto been used for this type of production. The main components of the mix to produce the rock wool are dolomite rock from Duror, on the south side of Loch Linnhe, in Argyll, and siliceous clay from Stirlingshire.

"Rocksil," as the new product is called by reason of its fine silken appearance, is an inexpensive form of heat, cold and sound insulation materials made up into a great variety of forms suitable for the insulation of buildings, ships, road, rail and air vehicles, cold storages and industries in general where heat must be conserved to achieve maximum efficiency.

Its manufacture is the second Scottish enterprise of The Cape Asbestos Co., Ltd., of London and South Africa.

The marketing of "Rocksil" is being undertaken by William Kenyon & Sons, Ltd., heat insulation engineers of Dukinfield, Cheshire.

The present production of the factory is in the order of 10,000 cubic feet of fibrous insulation per day and employment is given to about 70 men with substantial increases as the development proceeds.

● All prices for "Ribble" Brand Portland Cement and "Velocrete" Rapid-Hardening Cement, throughout Great Britain and Northern Ireland, will be advanced on and after Monday, March 1, 1954, by 1s 6d (one shilling and sixpence), per ton.

The above advance applies to all outstanding quotations and future business will continue to be on a day-to-day basis, in accordance with the prices ruling on the date of despatch.

Notes below give basic data of contracts open under locality and authority which are in bold type. References indicate: (a) type of work, (b) address for application. Where no town is stated in the

CONTRACT • NEWS •

address it is the same as the locality given in the heading. (c) deposit, (d) last date for application, (e) last date and time for submission of tenders. Full details of contracts marked ★ are given in the advertisement section.

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OPEN BUILDING

AIREBOROUGH U.C. (a) Block of 7 garages, store, workshop and urinal, etc., Refuse Disposal Plant Site, Milners Road, Yeadon. (b) Engineer and Surveyor, Micklefield House, Rawdon, Leeds. (c) 2gns. (e) March 24.

BASINGSTOKE B.C. (a) 18 houses in 2 contracts of 8 and 10, South Ham Housing Estate. (b) Borough Architect, Municipal Buildings. (c) 2gns.

BERKSHIRE C.C. (a) Police house, Station Road, Twyford. (b) County Architect, Wilton House, Parkside Road, Reading. (b) 2gns. (e) March 25.

BIDEFORD B.C. (a) Block of 7 houses, Pynes Lane Estate. (b) Borough Surveyor, Municipal Buildings. (c) 2gns. (e) March 22.

BIRKENHEAD B.C. (a) Block of 12 3-storey flats, Abey Street. (b) Borough Architect, "Menlo," Wexford Road. (c) 2gns. (e) March 19.

BOOTLE B.C. (a) County Primary School, Copy Lane, Netherton. (b) Borough Surveyor, Town Hall. (c) 2gns. (e) March 24.

BOURNEMOUTH B.C. (a) Pair of police houses, Wakeley Road, West Howe Estate. (b) Borough Architect, Town Hall. (c) 2gns. (e) March 27.

BRIGHTON B.C. (a) New kitchen and boiler house, Varndean School for Girls. (b) Borough Engineer, 26-30, King's Road. (c) 2gns. (e) March 22.

***BRIGHTON B.C.** (a) Block of 16 flats, Albion Hill Homes, Islingwood Road. (b) Borough Engineer, 26-30, King's Road. (c) 2gns. (e) March 30. See page 38.

BUCKINGHAMSHIRE C.C. (a) Junior school, Far Bletchley. (b) County Architect, County Offices, Aylesbury. (c) 5gns. (d) March 15. (e) April 26.

CHAILEY R.C. (a) 12 dwellings, Housing Estate, Rushy Green, Ringmer. (b) Council's Surveyor, Council Offices, Lewes House, Lewes. (e) April 24.

CORNWALL C.C. (a) Alterations and extensions to Bude Fire Station. (b) County Architect, County Hall, Truro. (c) 1gn. (d) March 15. (e) April 5.

CUMBERLAND C.C. (a) Erection of (1) new clinic at Brunswick Square; (2) 375-meal kitchen and extension to dining room at Queen Elizabeth Grammar School, Penrith; (3) new clinic at Valley Estate, Whitehaven; (4) improvements and alterations to police station and police court at Whitehaven. (b) County Architect, 15, Portland Square, Carlisle. (e) March 26.

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DEAL B.C. (a) 26 houses, St. Martin's Road Housing Estate. (b) Borough Engineer, Municipal Offices, Queen Street. (c) 2gns. (e) March 24.

DORCHESTER R.C. (a) 40 houses, Charminster. (b) Council's Architect, 58, High West Street. (c) 2gns. (e) March 29.

EAST SUFFOLK C.C. (a) (1) police house, East Bergholt; (2) police house, Stratford St. Mary. (b) County Architect, County Hall, Ipswich. (c) 2gns. (d) March 19. (e) April 9.

ESSEX C.C. (a) Internal renovations to Chingford County High School. (b) County Architect, County Hall, Chelmsford. (d) March 20.

FALMOUTH B.C. (a) Erection of a mortuary at the cemetery extension, Swanpool Hill. (b) Borough Surveyor, Municipal Buildings. (c) 2gns. (e) April 1.

GOLBORNE U.C. (a) 50 houses, Culcheth. (b) Engineer and Surveyor, Council Offices, Lowton, near Warrington. (c) 5gns. (e) March 31.

HALIFAX B.C. (a) 68 flats at Mixenden and 4 flats at Moor Lane, Halifax. (b) Borough Engineer, Crossley Street. (c) £2. (e) March 29.

HARROW U.C. (a) Block of 8 lock-up garages, Edgware Golf Course Estate, Stanmore. (b) Engineer and Surveyor, Council Offices, "Cottesmore," Uxbridge Road, Stanmore. (c) £2. (e) March 25.

HUNTINGDON C.C. (a) Housecraft and handicraft rooms at Stanground. (b) County Architect, County Buildings. (c) March 26.

LEICESTER C.C. (a) Erection of a 3-storey shopping centre, Eyres Monsell Estate. (b) City Architect, Municipal Offices, Charles Street. (c) £3. (e) March 25.

LINDSEY C.C. (a) Additions to Waltham Toll Bar Secondary Modern School. (b) R. W. Brown, Norwich Union Chambers, 31, Osborne Street, Grimsby. (c) March 19.

N. IRELAND—MAGHERAFELT R.C. (a) 6 bungalow-type dwellings at Granny, Tobermore. (b) Clerk, Council Offices, Magherafelt, Londonderry. (c) 3gns. (e) March 25.

PAIGNTON U.C. (a) 16 old people's bungalows. (b) Clerk of the Council, Municipal Offices, Oldway, Paignton. (c) 2gns. (d) March 15.

PORTSMOUTH C.C. (a) Erection of (1) 2 flats, Guildford Road; (2) 12 flats and maisonettes, St. Chad's Avenue; (3) 64 houses, Bondfields Lawn, Leigh Park. (b) City Architect, Municipal Offices, 1, Western Parade. (c) £1 each contract. (d) March 16.

SCOTLAND—ABERDEEN C.C. (a) Alterations to existing buildings at Gordon School, Huntly; all trades. (b) County Architect's Dept., 25, Union Terrace. (c) 5gns. (d) March 16.


SCOTLAND—ARBROATH B.C. (a) Erection of one 3-storey block of shops and flats, Seaton Road Shopping Centre; all trades. (b) Housing Architect, 32, Hill Street. (c) March 23.

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SCOTLAND—GLASGOW C.C. (a) Several works in connection with erection of shops and maisonettes, Fieldhead Square, Eastwood. (b) Architectural and Planning Dept., 20, Trongate, C.1. (c) March 26.

SCOTLAND—MIDLOTHIAN C.C. (a) All trades in erection of 8 houses at Newtongrange. (b) County Architect, 32, Palmerston Place, Edinburgh.

SMETHWICK B.C. (a) Construction of a civil defence control centre. (b) Borough Engineer, Council House. (c) 2gns. (e) April 5.

PLACED

Notes on contracts placed state locality and authority in bold type with (1) type of work, (2) site, (3) name of contractor and address, (4) amount of tender or estimate. † denotes that work may not start pending final acceptance, or obtaining of licence, or modification of tenders, etc.

POPLAR B.C. (1) 84 flats. (2) Teviot Street area. (3) Percy Bilton, Ltd., 113, Park Street, London, W.1. (4) £201,546.

LONDON COUNTY COUNCIL. (1) Comprehensive school. (2) Sedghill, Lewisham. (3) Rush and Tompkins, Ltd., Station Road, Sidcup, Kent. (4) £505,771.

BEXLEY (KENT) B.C. (1) First instalment of grammar school. (3) Richard Costain, Ltd., Dolphin Square, London, S.W.1. (4) £117,397.

STALYBRIDGE C.C. (1) 92 houses. (2) Cropley Estate. (3) Dean and Whipp, Ltd., Clarendon Road, Hyde, Cheshire. (4) £120,541.

BATTERSEA B.C. (1) 190 flats. (2) Anerley Street. (3) Rush and Tompkins, Ltd., Station Road, Sidcup, Kent. (4) £398,738.

LEWISHAM B.C. (1) 21 flats, 10 maisonettes. (2) Ladywell Park. (3) Rush and Tompkins, Ltd., Sidcup, Kent. (4) £67,105.

WEST SUSSEX C.C. (1) Grammar school. (2) Ifield Campus, Crawley. (3) Y. J. Lovell and Sons, Ltd., of Horsham, London and Gerrards Cross. (4) £343,704.

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STAFFORDSHIRE C.C. (1) Second instalment. (2) Walsall and Staffs. Technical College. (3) J. and F. Wootton, Ltd., Pinfold, Bloxwich, Walsall. (4) £120,495.

WARRINGTON. (1) High school for girls. (2) Loushers Lane. (3) Geo. Moss and Sons, Ltd., Leigh, Lancs. (4) £135,600.

SWANSEA B.C. (1) 181 houses, 16 flats. (2) Portmead site. (3) Direct labour. (4) £294,537.

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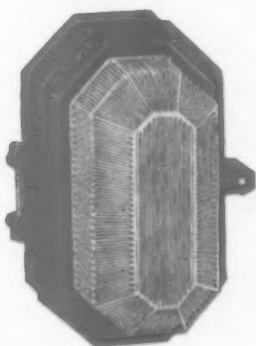


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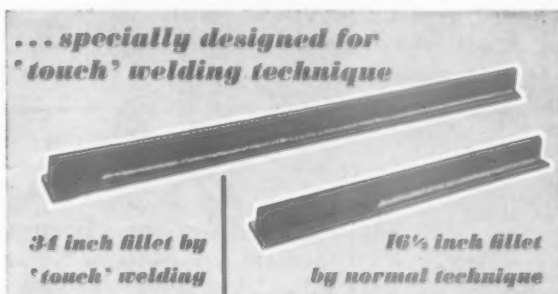
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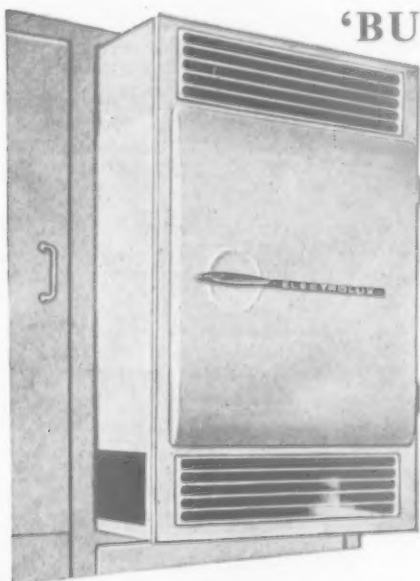
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Applications, stating age, qualifications and experience, together with copies of two recent testimonials, must be sent to the undersigned not later than first post on Wednesday, 24th March, 1954.

STUART D. HILL,
Clerk to the Council.

Town Hall,
KNOTTINGLEY,
Yorks.
11th March, 1954. [7741]

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The post is permanent, superannuable, subject to a medical examination and to three months' notice on either side.

Applications, endorsed "Senior Architect (Education)," stating age, present post and salary, qualifications and experience, together with the names of two persons to whom reference can be made, should reach the undersigned not later than the 27th March, 1954.

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Civic Centre, Birmingham, 1. [7723]

APPOINTMENTS—contd.

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CHIEF ARCHITECT'S DEPARTMENT.

APPLICATIONS are invited for the temporary post of LANDSCAPE ARCHITECT on the staff of the Chief Architect/Planner, N. Tweddell, A.R.I.B.A., in Grade Vb salary £535-£585. Commencing salary within the grade will be in accordance with qualifications and experience.

The applicant will work in conjunction with Miss Silvia Crowe, F.I.L.A., the Landscape Consultant to the Corporation, and must be a good draughtsman and have had site experience.

Application forms obtainable from the General Manager, Basildon Development Corporation, Gifford House, Basildon, Essex, to be returned by 19th March, 1954. [7735]

BINGLEY URBAN DISTRICT COUNCIL.

APPOINTMENT OF ARCHITECTURAL ASSISTANTS IN THE SURVEYOR AND ARCHITECT'S DEPARTMENT.

APPLICATIONS are invited for the following permanent appointments on the Surveyor and Architect's Staff:—

(a) CHIEF ARCHITECTURAL ASSISTANT, Grade A.P.T. 6—£695, rising by three annual increments to £760.

(b) ARCHITECTURAL ASSISTANT, Grade A.P.T. 3—£550, rising by three annual increments to £595.

Candidates for post (a) should have had considerable training and experience in housing design and development, and general architectural work. Preference will be given to candidates who have passed the final examination of the Royal Institute of British Architects.

Candidates for post (b) should have had experience in housing design and development and general architectural work. Preference will be given to candidates who have passed part of the examinations of the Royal Institute of British Architects.

The appointments will be terminable by one month's notice on either side and will be subject to the provisions of the Local Government Superannuation Act, 1937.

Applications, stating age, qualifications, training and experience, and details of past and present appointments, accompanied by copies of three recent testimonials, should be forwarded, endorsed for post (a) "Chief Architectural Assistant," and for post (b) "Architectural Assistant." Applications should be forwarded to the undersigned before Tuesday, 16th March, 1954.

The Council is unable to provide housing accommodation.

F. M. DUNWELL,
Clerk of the Council.

Town Hall,
Bingley,
2nd March, 1954. [7734]

BASILDON DEVELOPMENT CORPORATION.

CHIEF ARCHITECT'S DEPARTMENT.

APPOINTMENT OF ARCHITECT (GRADE III).

APPLICATIONS are invited for the post of a qualified ARCHITECT, Grade III in the salary range £835—£1,085 on the staff of the Chief Architect/Planner, N. Tweddell, A.R.I.B.A. Commencing salary within the grade will be in accordance with experience and ability. Applicants will be expected to have wide experience in design and supervision of large scale housing contracts including non-traditional methods of construction. The Architect will be in charge of two or more design groups and should be experienced in all stages of contract management to completion of final accounts. He may also be called upon to assist with the development of the Town Centre. The appointment is subject to the provisions of the Local Government and other Officers' Superannuation Act and the successful applicant will be required to pass a medical examination. Under suitable conditions, a house in the new town will be available to the successful candidate. Applications on form obtainable from the Chief Architect, should reach the General Manager, Basildon Development Corporation, Gifford House, Basildon, Essex, by 22nd March, 1954. [7731]

APPOINTMENTS—contd.

COUNTY BOROUGH OF BARNSELEY EDUCATION COMMITTEE.

SECOND ADVERTISEMENT.

RESIDENT ENGINEER.

APPLICATIONS are invited for the temporary post of RESIDENT ENGINEER to supervise the erection of the first instalment of the extensions to the Barnsley Mining and Technical College and also the erection of a Secondary Modern School. Salary will be at the rate of £900 per annum. The post is not pensionable.

The extensions to the Technical College will be of considerable size and will be carried out in four phases, so that there is likely to be continuity of work for some years.

The secondary modern school will accommodate 600 children.

Candidates should have a thorough knowledge of building construction and have had a wide experience in the building trade of large architectural projects, including reinforced concrete work.

Applications, stating age, present and past appointments and full particulars of qualifications and experience, accompanied by names and addresses of two persons to whom reference may be made should be sent to the undersigned not later than 20th March, 1954.

H. A. REDBURN,
Director of Education.

Education Department,
Town Hall,
BARNSELEY,
March, 1954. [7743]

CHESTERTON RURAL DISTRICT COUNCIL.

ARCHITECT'S DEPARTMENT.

APPLICATIONS are invited for an ARCHITECTURAL ASSISTANT, Grade A.P.T. II (£520—£565 p.a. after 1st April, 1954). Housing accommodation considered, if required.

Applications stating age, present position, qualifications and experience, together with the names of two persons to whom reference may be made, to be sent to the undersigned, not later than Saturday, 20th March, 1954.

W. H. HAYWARD,
Clerk of the Council.

County Hall,
Hobson Street,
CAMBRIDGE. [7726]

BERKSHIRE COUNTY COUNCIL.

APPLICATIONS are invited for the following appointments in the County Architect's Dept.:

1. ASSISTANT QUANTITY SURVEYOR. Salary Grade VI, £695—£760. Candidates should have had considerable experience in taking off in accordance with the Standard Method of Measurement for large building projects and in the settlement of final accounts. They should be Associates of the R.I.C.S.

2. QUANTITY SURVEYING ASSISTANT. Salary Grade I, £490—£535. Candidates should have had some experience in a Quantity Surveying office and have passed the First Examination of the R.I.C.S.

Application forms and further particulars can be obtained from the County Architect, Wilton House, Parkside Road, Reading, to whom they should be returned completed by noon on Thursday, 18th March, 1954.

E. R. DAVIES,
Clerk of the Council.

[7729]

TRACER (woman) required by the Crown Agents for the Colonies for Drawing Office. Commencing pay between 116/1 and 134/10 a week according to age, rising by annual increments of 5/- a week to 147/- for 45½ hours' week. Hours 9 a.m.-5.30 p.m. (12 noon Saturdays). Paid holidays at rate of 18 days a year, inclusive of one Saturday morning (half day) off per month. Refreshment Club on premises—low charges for lunch and tea. Candidates must be 21 years of age or over and preference will be given to experienced Tracers. Write, stating age and experience, to the Crown Agents for the Colonies, 4, Millbank, London, S.W.1, quoting 0/225/AF. [7738]

APPOINTMENTS—contd.**COUNTY COUNCIL OF STIRLING.****COUNTY ARCHITECT'S DEPARTMENT.**

APPLICATIONS are invited for the following appointments in the County Architect's Department:—

- (a) 2 SENIOR ASSISTANT ARCHITECTS—A.P.T. Grade VIII (£795-£870).
- (b) 3 ARCHITECTURAL ASSISTANTS—A.P.T. Grade Va (£660-£720) to Grade VII (£745-£820) (according to experience).
- (c) 3 ARCHITECTURAL ASSISTANTS, 1 CIVIL ENGINEERING ASSISTANT—A.P.T. Grade I (£490-£535) to Grade V (£630-£680) (according to experience).

Candidates for (a) and (b) must be Associate Members of the Royal Institute of British Architects and have good experience in contemporary design and construction of Schools and General Buildings, preparation of working drawings and supervision of building works.

Candidates for (c) Grades III, IV and V should have passed Intermediate R.I.B.A. and applicants for Grades I and II should be quick and accurate draughtsmen having completed the recognised apprenticeship.

- (d) 1 SENIOR ASSISTANT QUANTITY SURVEYOR—A.P.T. Grade VIII (£795-£870).
- (e) 3 ASSISTANT SURVEYORS—A.P.T. Grade Va (£660-£720) to Grade VII (£745-£820) (according to experience).
- (f) 2 JUNIOR ASSISTANT SURVEYORS—A.P.T. Grade I (£490-£535) to Grade V (£630-£680) (according to experience).

Candidates for (d) and (e) should be Associate Members of the Royal Institute of Chartered Surveyors and have wide experience in the preparation of estimates, specifications, schedules of quantities, re-measurement and final accounts for general building works. Preference may be given to applicants with experience in School Buildings.

Candidates for (f) should preferably have passed the Intermediate R.I.C.S. and have a sound basic training in the profession.

The appointments will be subject to the provisions of the Local Government Superannuation Act, 1937, and the successful candidates will require to pass a medical examination.

Applications, stating age, qualifications, experience and post applied for, accompanied by copies of recent testimonials, should be lodged with the undersigned not later than 29th March, 1954.

JAMES D. KENNEDY,

County Clerk.

County Offices,
Viewforth,
STIRLING.

[7732]

COUNTY BOROUGH OF WIGAN.**BOROUGH ENGINEER'S DEPARTMENT.**

APPLICATIONS are invited from suitably qualified persons for the appointment of an ARCHITECTURAL ASSISTANT on the established staff of the Borough Engineer. Salary A.P.T. Division, Grade IV/V (£580-£670).

Applications, on forms to be obtained from the Borough Engineer, Municipal Buildings, Library Street, Wigan, and giving names of two referees, should be delivered to the Borough Engineer on or before SATURDAY, 20th MARCH, 1954.

ALAN ROYLE,
Town Clerk.

Municipal Buildings,
Wigan,
26th February, 1954.

[7749]

HER MAJESTY'S COLONIAL SERVICE.**ARCHITECT,
PUBLIC WORKS DEPARTMENT,
HONG KONG.**

DUTIES include the preparation of designs, sketch plans and working drawings for the new City Hall, and any other duties directed by the Director of Public Works.

Appointment on contract for three years in first instance in salary range £787 10s to £1,406 5s per annum, plus expatriation allowance of £210-£280 per annum. Point of entry determined by war service and experience. Gratuity of £150 to £200 p.a. payable on satisfactory completion of contract. Substantial cost of living allowance also payable.

Free passages provided for the officer, his wife and children up to three in number. Leave is granted at the rate of one day for each seven days' resident service. Government quarters, if available, are provided at low rents.

Candidates between the ages of 28 and 35 must be A.R.I.B.A., preferably possessing a University Degree in Architecture, with at least five years' experience in architectural design and construction.

Apply in writing to the Director of Recruitment, Colonial Office, Great Smith Street, London, S.W.1, giving briefly age, qualifications and experience. Mention the reference number CDE.112/51/06. Closing date for receipt of initial enquiry April 3, 1954.

[7736]

CONTRACTS**BRECONSHIRE COUNTY COUNCIL.****TO BUILDING CONTRACTORS.****PROPOSED RESIDENTIAL HOME FOR OLD PEOPLE, BRYNMAWR.**

TENDERS are invited for the ERECTION of the above HOME TO ACCOMMODATE APPROXIMATELY 30 OLD PEOPLE, at the corner of Greenland Road and Darenfelen Road, Brynmawr.

Applications for tendering particulars must be made to H. C. W. Strickland, F.R.I.B.A., County Architect, Rhed Offices, Brecon, with deposit of £2/2, returnable upon receipt of a bona fide Tender.

Tenders must be received not later than 24th March, 1954.

C. M. S. WELLS,
Clerk of the County Council.

County Hall,
Brecon.

[7747]

COUNTY BOROUGH OF BRIGHTON.

Tenders are invited for:

THE ERECTION OF A BLOCK OF 16 FLATS, ALBION HILL HOMES, ISLINGWORD ROAD Bills of Quantities and forms of tender may be obtained from the Borough Engineer & Surveyor, 26-30, King's Road, Brighton, on or after Monday, 8th March, 1954, on receipt of a returnable deposit of £2 2s.

Tenders are to be delivered to the Town Clerk in plain sealed envelopes not later than noon on Tuesday, 30th March, 1954.

W. O. DODD,
Town Clerk.

[7730]

COUNTY BOROUGH OF BRIGHTON

Tenders are invited for the erection of:—
8 FIREMEN'S COTTAGES AT ROEDEAN ROAD, BRIGHTON.

Bills of Quantities and forms of tender may be obtained from the Borough Engineer and Surveyor, 26-30, King's Road, Brighton, on or after the 15th March, 1954, on receipt of a returnable deposit of £2 2s.

Tenders are to be delivered to the Town Clerk in plain sealed envelopes not later than noon on Monday, 29th March, 1954.

W. O. DODD,
Town Clerk.

[7750]

COUNTY BOROUGH OF BRIGHTON

Tenders are invited for the erection of:—
2 PAIRS POLICE HOUSES ON HOLLINGDEAN ESTATE.
3 PAIRS POLICE HOUSES ON CRAVEN VALE ESTATE.

1 PAIR POLICE HOUSES ON SOUTH WOODINGDEAN ESTATE.

Bills of Quantities and forms of tender may be obtained from the Borough Engineer and Surveyor, 26-30, King's Road Brighton, on or after the 19th March, 1954, on receipt of a returnable deposit of £1 1s for each section.

Tenders are to be delivered to the Town Clerk in plain sealed envelopes not later than noon on Tuesday, 6th April, 1954.

W. O. DODD,
Town Clerk.

[7751]

MISCELLANEOUS SECTION

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BOX NOS. add 2 words plus 1/- for registration and forwarding replies which should be addressed c/o, "The Architect & Building News," Dorset House, Stamford Street, London, S.E.1.

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ARCHITECTURAL APPOINTMENTS VACANT

The engagement of persons answering these advertisements must be made through the local office of the Ministry of Labour and National Service, etc., if the applicant is a man aged 18-64 or a woman aged 18-59 inclusive, unless he or she or the employer is exempted from the provisions of The Notification of Vacancies Order 1952.

ARCHITECTURAL Assistants required; applicants should have completed their National Service and have had at least two years' office experience.—Apply in writing, stating age, training and experience, to the Chief Staff Architect, Ilford Limited, Romford, Essex.

[7739]

ARCHITECTURAL APPOINTMENTS VACANT—contd.

NORMAN & DAWBARN may require senior architectural assistant, preferably between 35 and 40, good planner and organiser with experience of reasonably large work in private practice. Preliminary applications to 5 Gower Street, London, W.C.1, marked "Confidential." [7744]

THE BIRMINGHAM CO-OPERATIVE SOCIETY requires the services of a Senior Architectural Assistant to work under the direction of the Society's Architect, R. K. Lewis, A.R.I.B.A. Applicants must have sound knowledge of construction and preparation of working drawings, experience in design of industrial buildings and multiple stores. Salary according to qualifications. Superannuation Scheme.—Applications, stating age, qualifications and salary required, endorsed Architectural Assistant, should be sent to the Personnel Officer, Birmingham Co-operative Society, Ltd., High St., Birmingham, 4. [7753]

SITUATIONS VACANT

The engagement of persons answering these advertisements must be made through the local office of the Ministry of Labour and National Service, etc., if the applicant is a man aged 18-64 or a woman aged 18-59 inclusive, unless he or she or the employer is exempted from the provisions of The Notification of Vacancies Order 1952.

OUTSIDE representative about 25/30 years old required for North East Coast area by established company marketing specialist building materials. Position carries salary, expenses and commission with car provided. Applicants must have selling experience and preferably knowledge of architecture, surveying or building, and must live in the area.—Write Box Z.G. 572, Deacon's Advertising, 36, Leadenhall Street, London, E.C.3. [7748]

SERVICES OFFERED

PRESENTATION drawings, perspectives executed expertly in any medium; moderate fees.—Box 3832. [7719]

REGISTERED Architect, self-employed, age 45, 25 years' wide experience, offers part-time assistance—surveys, working-drawings, supervision, etc.; car owner; town or country enquiries considered in very strict confidence.—Box 3936. [7737]

PLANT FOR SALE

NEW, 5/34 Ward portable petrol-driven concrete mixers, for sale.—Full details from Thos. W. Ward, Ltd., Albion Works, Sheffield. [7696]

PORTABLE Concrete Breaker Hammer for sale with single-cylinder engine. One drill, photo, etc.—F. J. Edwards, Ltd., 359, Euston Rd., London. [7727]

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CHASESIDE mechanical shovels, Major type, by day, week or contract, with drivers; tipping lorries supplied if required with shovels.—Henry Froud, Ltd., Primrose Wharf, Tunnel Ave., Greenwich, S.E.10. Tel. Greenwich 0072-3. [0138]

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FOR Sale, approximately 3,000 square yards, first quality, white and dove real marble tiles, sizes 18in x 18in, 8in x 8in and 6in x 6in approximately, 50/- per yard delivered in quantity; impossible to repeat.—Box 3918. [7724]

NEW steel framed building, 200ft long x 100ft wide, in two 50ft bays, 16ft to eaves, ridge type roof, complete with sheeting, roofing, glazing, gutters, down pipes, nuts, bolts, etc.—F. Burdill & Co., 18, Dumfries Place, Cardiff. Tel. 26100. [7746]

PARTNERSHIP

WORKING partner required, builders' business, Southern Counties; capable of office control and accounts; turnover £20,000; capital required.—A. Comport & Son, Northiam, Nr. Rye, Sussex. [7725]

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GRANADA Theatres require a D/E size metal horizontal plan filing cabinet, 6 or 8 drawers.—Offers to Architect, 36, Golden Square, W.1. [7740]
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ASCOT gas water heaters wanted, any condition or quantity, also electrical water heaters and other domestic equipment.—Williams, 22, Cranfield Villas, London, S.E.27. Gip. 3095. [7745]

INSURANCE

ARCHITECTS' Indemnity Insurance effected. Please write for Proposal Form to E. J. SAXBY, Incorporated Insurance Broker, 37a, Carfax, Horsham, Sussex. Tel. 990. [7660]

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RECONDITIONED ex-Army huts and manufactured buildings, timber, asbestos, Nissen type, hall type, etc., all sizes and prices.—Write, call or telephone Universal Supplies (Belvedere), Ltd., Dept. 32, Crabtree Manorway, Belvedere, Kent. Tel. Erith 2948. [0120]

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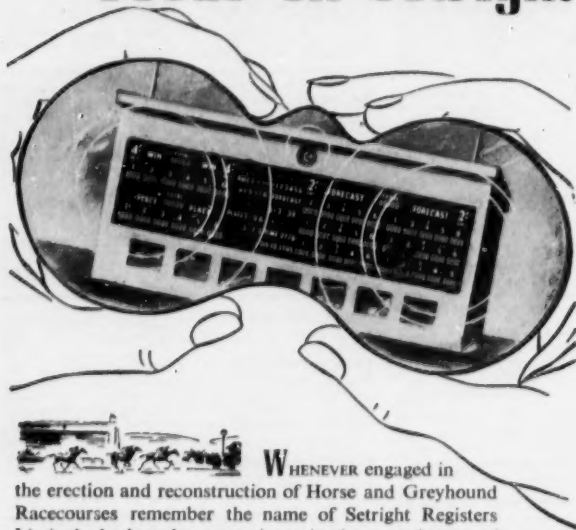
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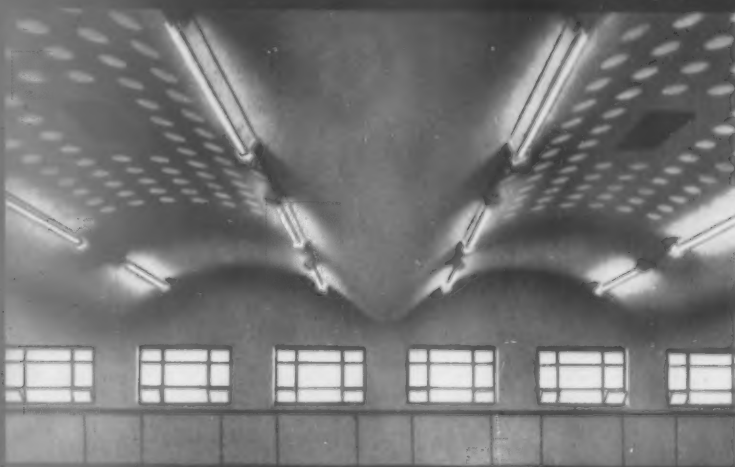
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